

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. 9. API Well No. 30-015-56434		
2. Name of Operator 3a. Address 3b. Phone No. (include area code)		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area 12. County or Parish 13. State		
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		14. Distance in miles and direction from nearest town or post office* 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 16. No of acres in lease 17. Spacing Unit dedicated to this well 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 19. Proposed Depth 20. BLM/BIA Bond No. in file 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration		
24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). </td> <td style="width: 50%; vertical-align: top;"> 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM. </td> </tr> </table>			1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).	4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.
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25. Signature Title		Name (Printed/Typed) Date		
Approved by (Signature) Title		Name (Printed/Typed) Office Date		

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6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature Title	Name (Printed/Typed) Office	Date Date
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)



C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☒ Initial Submittal
			☐ Amended Report
			☐ As Drilled

WELL LOCATION INFORMATION

API Number 30-015- 56434	Pool Code 96718	Pool Name LOCO HILLS; GLORIETA-YESO
Property Code 337178	Property Name TESORO 20 FEDERAL COM	Well Number 71H
OGRID No. 328947	Operator Name SPUR ENERGY PARTNERS LLC.	Ground Level Elevation 3638'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL D	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 730 FNL	Ft. from E/W 65 FWL	Latitude 32.8252847°N	Longitude 104.0025358°W	County EDDY
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Bottom Hole Location

UL H	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 1905 FNL	Ft. from E/W 50 FEL	Latitude 32.8220536°N	Longitude 103.9857215°W	County EDDY
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Dedicated Acres 320	Infill or Defining Well INFILL	Defining Well API PENDING	Overlapping Spacing Unit (Y/N) N	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL H	Section 19	Township 17S	Range 30E	Lot	Ft. from N/S 1763 FNL	Ft. from E/W 710 FEL	Latitude 32.8224459°N	Longitude 104.0050578°W	County EDDY
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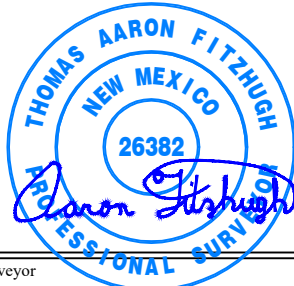
First Take Point (FTP)

UL E	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 1905 FNL	Ft. from E/W 100 FWL	Latitude 32.8220557°N	Longitude 104.0024202°W	County EDDY
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Last Take Point (LTP)

UL H	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 1905 FNL	Ft. from E/W 100 FEL	Latitude 32.8220536°N	Longitude 103.9858842°W	County EDDY
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Unitized Area or Area of Uniform Interest Y	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 3638'
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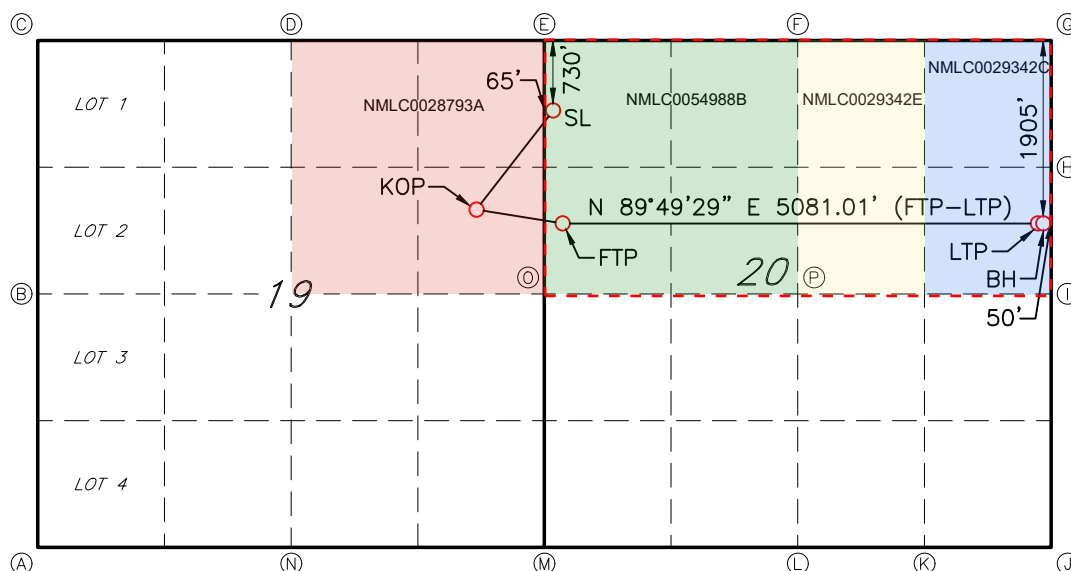
OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i> Sarah Chapman 08/29/2024		SURVEYOR CERTIFICATIONS <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me under my supervision, and that the same is true and correct to the best of my belief.</i> 	
Signature SARAH CHAPMAN		Signature and Seal of Professional Surveyor	
Printed Name SCHAPMAN@SPURENERGY.COM		Certificate Number 26382	Date of Survey 05/28/2024
Email Address			

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



GEODETIC DATA

NAD 83 GRID - NM EAST

SURFACE LOCATION (SL)

N: 664130.4 - E: 642951.9

LAT: 32.8252847° N
LONG: 104.0025358° W

KICK OFF POINT (KOP)

1763' FNL - 710' FEL SEC.19
N: 663095.2 - E: 642180.4LAT: 32.8224459° N
LONG: 104.0050578° W

FIRST TAKE POINT (FTP)

1905' FNL - 100' FWL SEC.20
N: 662955.7 - E: 642991.1LAT: 32.8220557° N
LONG: 104.0024202° W

LAST TAKE POINT (LTP)

1905' FNL - 100' FWL SEC.20
N: 662971.3 - E: 648070.8LAT: 32.8220536° N
LONG: 103.9858842° W

BOTTOM HOLE (BH)

N: 662971.4 - E: 648120.8

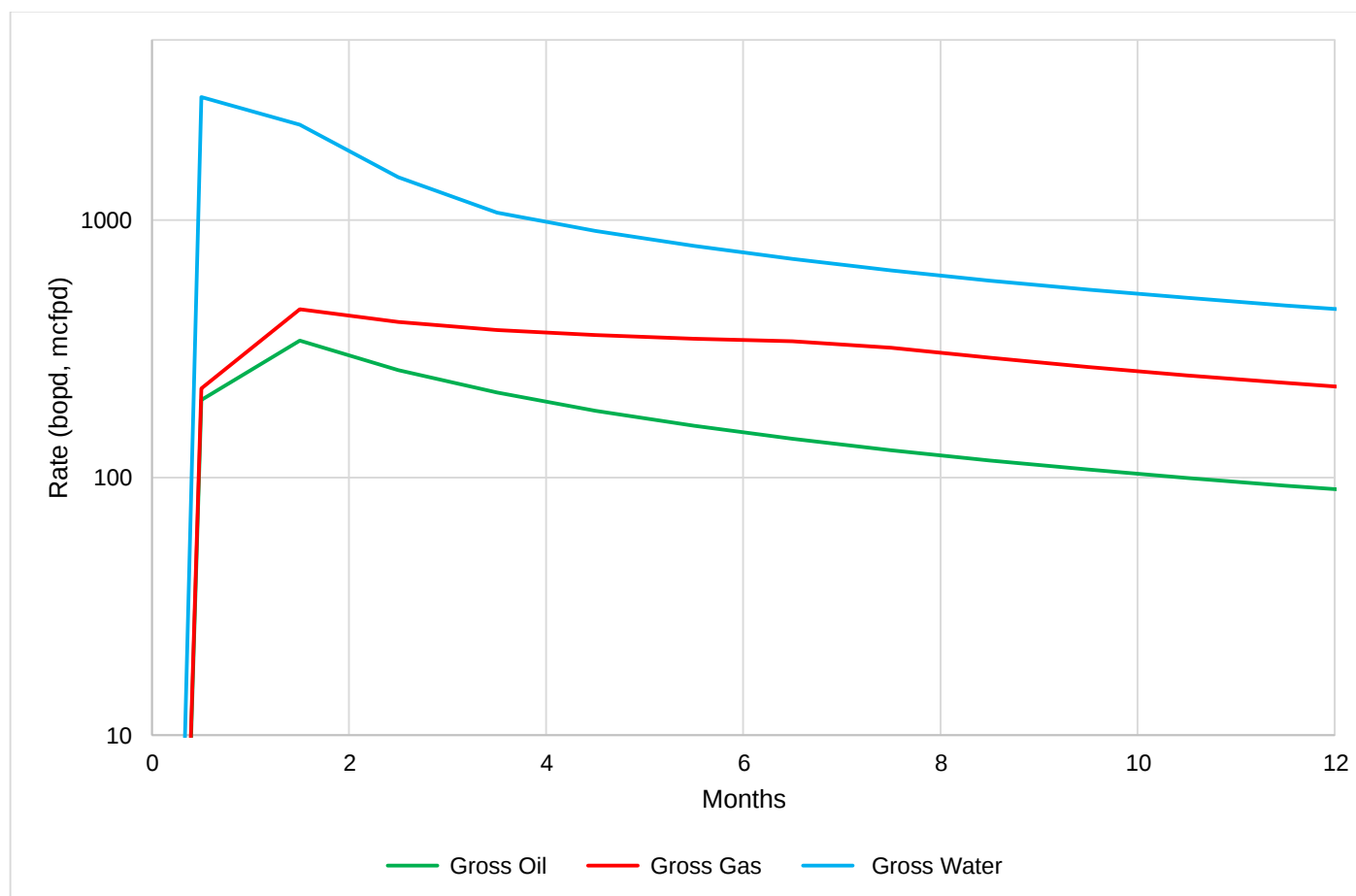
LAT: 32.8220536° N
LONG: 103.9857215° W

CORNER DATA

NAD 83 GRID - NM EAST

A: FOUND 2 1/2" STEEL PIPE
N: 659567.0 - E: 637708.9B: FOUND BRASS CAP "1914"
N: 662203.0 - E: 637700.0C: FOUND BRASS CAP "1914"
N: 664840.4 - E: 637685.9D: FOUND BRASS CAP "1997"
N: 664849.8 - E: 640242.9E: FOUND BRASS CAP "1916"
N: 664860.0 - E: 642884.4F: FOUND BRASS CAP "1916"
N: 664867.5 - E: 645524.3G: FOUND BRASS CAP "1916"
N: 664876.1 - E: 648164.3H: FOUND BRASS CAP "1940"
N: 663555.8 - E: 648168.8I: FOUND ALUM CAP BLM "1984"
N: 662235.5 - E: 648173.3J: FOUND ALUM CAP "1983"
N: 659595.4 - E: 648182.7K: FOUND 3" ALUM CAP DOI "1984"
N: 659591.5 - E: 646862.8L: FOUND BRASS CAP "1916"
N: 659587.8 - E: 645542.7M: FOUND BRASS CAP "1916"
N: 659581.0 - E: 642902.6N: FOUND BRASS CAP "1916"
N: 659574.2 - E: 640262.1O: FOUND BRASS CAP "1990"
N: 662220.5 - E: 642893.7P: FOUND ALUM CAP "1985"
N: 662228.3 - E: 645533.7

Maljamar Blinebry Type Curve



State of New Mexico
Energy, Minerals and Natural Resources DepartmentSubmit Electronically
Via E-permittingOil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505**NATURAL GAS MANAGEMENT PLAN**

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021**I. Operator:** SPUR ENERGY PARTNERS LLC **OGRID:** 328947 **Date:** 08 / 26 / 2024**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
TESORO 20 FEDERAL COM 70H	30-015-	D-20-17S-30E	690' FNL 65' FWL	335 BBL/D	365 MCF/D	1006 BBL/D
TESORO 20 FEDERAL COM 71H	30-015-	D-20-17S-30E	730' FNL 65' FWL	335 BBL/D	365 MCF/D	1006 BBL/D
TESORO 20 FEDERAL COM 90H	30-015-	D-20-17S-30E	710' FNL 65' FWL	304 BBL/D	331 MCF/D	1522 BBL/D

IV. Central Delivery Point Name: OCHO TESORO 20 FEDERAL COM TANK BATTERY [See 19.15.27.9(D)(1) NMAC]**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
TESORO 20 FEDERAL COM 70H	30-015-	09/28/2025	10/07/2025	11/03/2025	11/17/2025	11/29/2025
TESORO 20 FEDERAL COM 71H	30-015-	10/07/2025	10/16/2025	11/03/2025	11/17/2025	11/29/2025
TESORO 20 FEDERAL COM 90H	30-015-	10/16/2025	10/25/2025	11/03/2025	11/17/2025	11/29/2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	<i>Sarah Chapman</i>
Printed Name:	SARAH CHAPMAN
Title:	REGULATORY DIRECTOR
E-mail Address:	SCHAPMAN@SPUREENERGY.COM
Date:	08/26/2024
Phone:	832-930-8613
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	



Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on anticipated daily production to ensure adequate capacity.

VII. Spur Energy Partners LLC ("Spur") will take the following actions to comply with the regulations listed in 19.15.27.8:

- A. Spur will maximize the recovery of natural gas by minimizing waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Spur will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.
- B. All drilling operations will be equipped with a rig flare at least 100 feet from the nearest surface hole location. Rig flare will be utilized to combust any natural gas that is brought to surface during normal operations. In the case of emergency, flaring volumes will be reported appropriately.
- C. During completion operations any natural gas brought to surface will be flared. Immediately following completion operations, wells will flow to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. If natural gas does not meet gathering pipeline specifications, Spur will flare for 60 days or until natural gas meets the pipeline specifications. Spur will ensure flare is properly sized and is equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.
- D. Natural gas will not be flared with the exception of 19.15.27.8(D)(1-4). If there is no adequate takeaway for the separator gas, wells will be shut-in until that natural gas gathering system is available with exception of emergency or malfunction situations. Volumes will be reported appropriately.
- E. Spur will comply with performance standards pursuant to 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressures to minimize waste. Storage tanks constructed after May 25, 2021 will be equipped with an automatic gauging system that reduces venting of natural gas. Flare stacks installed or replaced after May 25, 2021 will be equipped with an automatic igniter or continuous pilot. Spur will conduct AVO inspections as described in 19.15.27.8(E)(5)(a) with frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.
- F. The volume of natural gas that is vented or flared as the result of an emergency or malfunction during drilling and/or completion operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured and reported accordingly. Spur will install equipment to measure the volume of natural gas flared from existing piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or VRUs associated with a well or facility associated with a well authorized by an APD after May 25, 2021 that has an average daily production of less than 60,000 cubic feet of natural gas. If metering is not practicable due to circumstances such as low flow rate or low pressure venting or flaring, Spur will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a manifold



that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing equipment.

VIII. For maintenance activities involving production equipment and compression, venting be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the associated producing wells will be shut-in to eliminate venting. For maintenance of VRUs, all natural gas normally routed to the VRU will be routed to flare.

Spur Energy Partners LLC – Tesoro 20 Federal Com #71H

1. Geologic Formations

TVD of Target	5,350'
MD at TD	11,165'

Formation	Depth	Lithology	Expected Fluids
Quaternary	0'	Dolomite, other: Caliche	Useable Water
Rustler	295'	Dolomite, Shale, Anhydrite	Other: Brackish Water
Top Salt	435'	Anhydrite	Other: Salt
Tansill	1005'	Sandstone, Dolomite	None
Yates	1115'	Dolomite, Limestone, Shale, Siltstone	None
Seven Rivers	1405'	Dolomite, Limestone	Natural Gas, Oil
Queen	2025'	Anhydrite, Dolomite, Sandstone	Natural Gas, Oil
Grayburg	2405'	Anhydrite	Natural Gas, Oil
San Andres	2760'	Dolomite	Natural Gas, Oil
Glorieta	4160'	Dolomite, Siltstone	Natural Gas, Oil
Paddock	4285'	Dolomite, Limestone	Natural Gas, Oil
Blinberry	4765'	Dolomite, Limestone	Natural Gas, Oil
Abo	6550'	Dolomite, Limestone	Will Not Penetrate

*H₂S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Casing Formation Set Interval	Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF	SF Burst	Body SF	Joint SF
		From (ft)	To (ft)					Collapse		Tension	Tension
Rustler	17.5	0	345	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
Seven Rivers	12.25	0	1500	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
N/A	8.75	0	5800	7	32	L-80	BK-HT	1.125	1.2	1.4	1.4
Yeso	8.75	5800	11165	5.5	20	L-80	BK-HT	1.125	1.2	1.4	1.4
SF Values will meet or Exceed											

Spur Energy Partners LLC – Tesoro 20 Federal Com #71H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface Tail	0	345	165%
Intermediate (Lead)	0	345	100%
Intermediate (Tail)	345	1500	100%
Production (Lead)	0	4800	100%
Production (Tail)	4800	11165	25%

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface Tail	326	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Intermediate (Lead)	53	12	2.4	13.48	8:12	Clas C Premium Plus Cement
Intermediate (Tail)	397	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Production (Lead)	783	11.4	2.42	15.29	N/A	Clas C Premium Plus Cement
Production (Tail)	1212	13.2	1.56	9.81	N/A	Clas C Premium Plus Cement

Spur Energy Partners LLC – Tesoro 20 Federal Com #71H

4. Pressure Control Equipment

Spur requests a variance to use a flex line from the BOP to the choke manifold. Documentation will be attached in the APD and be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no bends).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12.25" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram	✓	
			Double Ram		
			Other*		
8.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram	✓	
			Double Ram		
			Other*		

Spur Energy Partners LLC will be utilizing a 5M BOP

Condition	Specify what type and where?
BH Pressure at deepest TVD	2476 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	123°F

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
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Spur Energy Partners LLC – Tesoro 20 Federal Com #71H

Y	Are anchors required by manufacturer?
	A conventional wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. See attached schematics.

5. BOP Break Testing Request

Spur Energy Partners LLC requests permission to adjust the BOP break testing requirements as per the verbal agreement reached over the phone between SPUR/BLM on September 7, 2020. A separate sundry will be sent prior to spud that reflects the pad-based break testing plan.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000 TVD.
- When skidding to drill a production section that does not penetrate the 3rd Bone Spring or deeper.

If the kill line is broken prior to skid, four tests will be performed.

- 1) The void between the wellhead and the spool (this consists of two tests)
- 2) The spool between the kill lines and the choke manifold (this consists of two tests)

If the kill line is not broken prior to skid, two tests will be performed.

- 1) The void between the wellhead and the pipe rams

6. Mud Program

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Spur will use a closed mud system.

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	345	Water-Based Mud	8.6-8.9	32-36	N/C
345	1500	Brine	10.0-10.5	32-36	N/C
1500	11165	Brine	10.0-10.5	32-36	N/C

What will be used to monitor the loss or gain of fluid?	PVT/PASON/Visual Monitoring
---	-----------------------------

Spur Energy Partners LLC – Tesoro 20 Federal Com #71H

7. Logging and Testing Procedures

Logging, Coring and Testing.		
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.	
No	Logs are planned based on well control or offset log information.	
No	Drill stem test? If yes, explain	
No	Coring? If yes, explain	
Additional logs planned	Interval	
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

8. Drilling Conditions

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

Total estimated cuttings volume: 1092.8 bbls.

Spur Energy Partners LLC – Tesoro 20 Federal Com #71H**9. Other facets of operation**

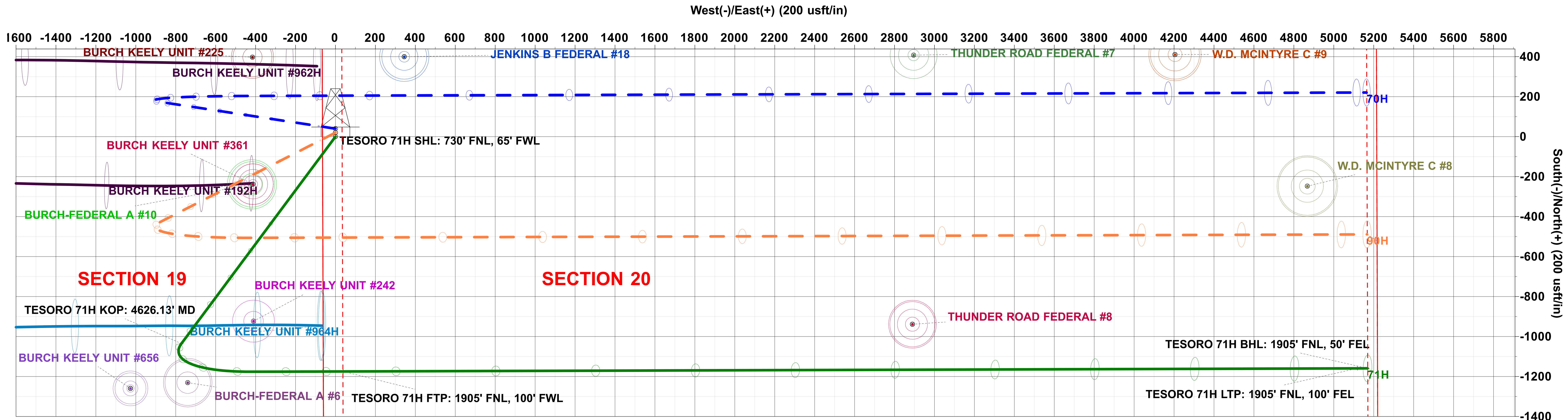
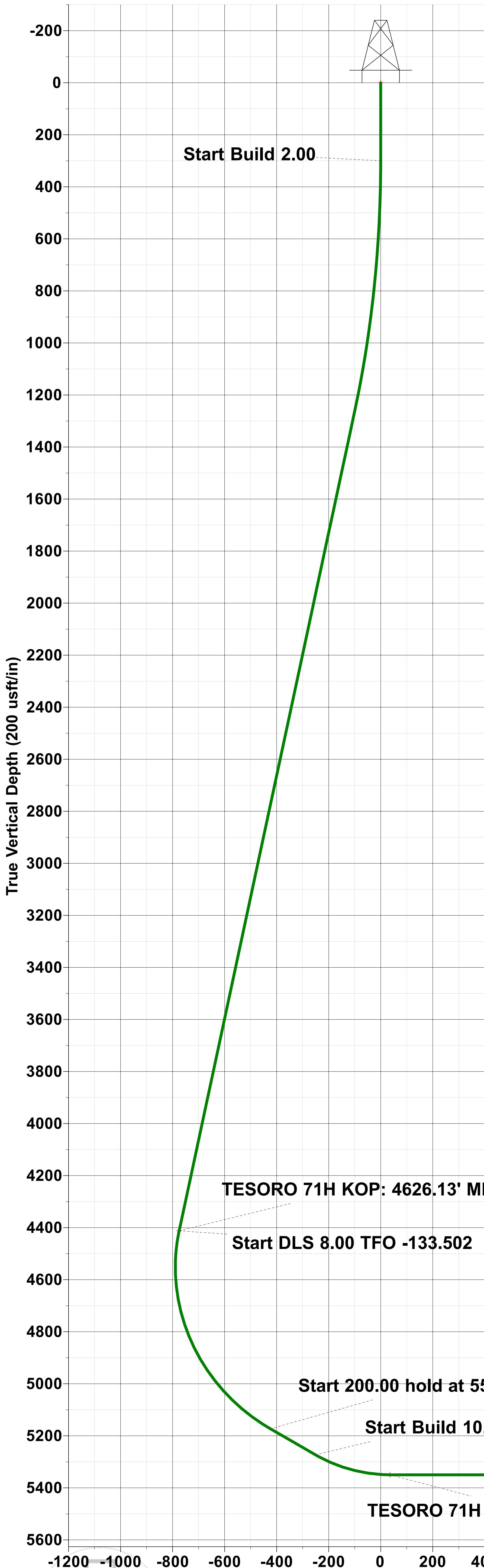
	Yes/No
Will more than one drilling rig be used for drilling operations? If yes, describe. Spur Energy Partners LLC. requests the option to contract a Surface Rig to drill, set surface/intermediate casing and cement for this well. If the timing between rigs is such that Spur Energy Partners LLC. would not be able to preset surface/intermediate the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Attachments

- ☒ Directional Plan
☒ H2S Contingency Plan
☒ Akita 57 Attachments
☒ BOP Schematics
☒ Transcend Spudder Rig Attachments

10. Company Personnel

Name	Title	Office Phone	Mobile Phone
Christopher Hollis	Drilling Manager	832-930-8629	713-380-7754
Johnny Nabors	Senior Vice President Operations	832-930-8502	281-904-8811



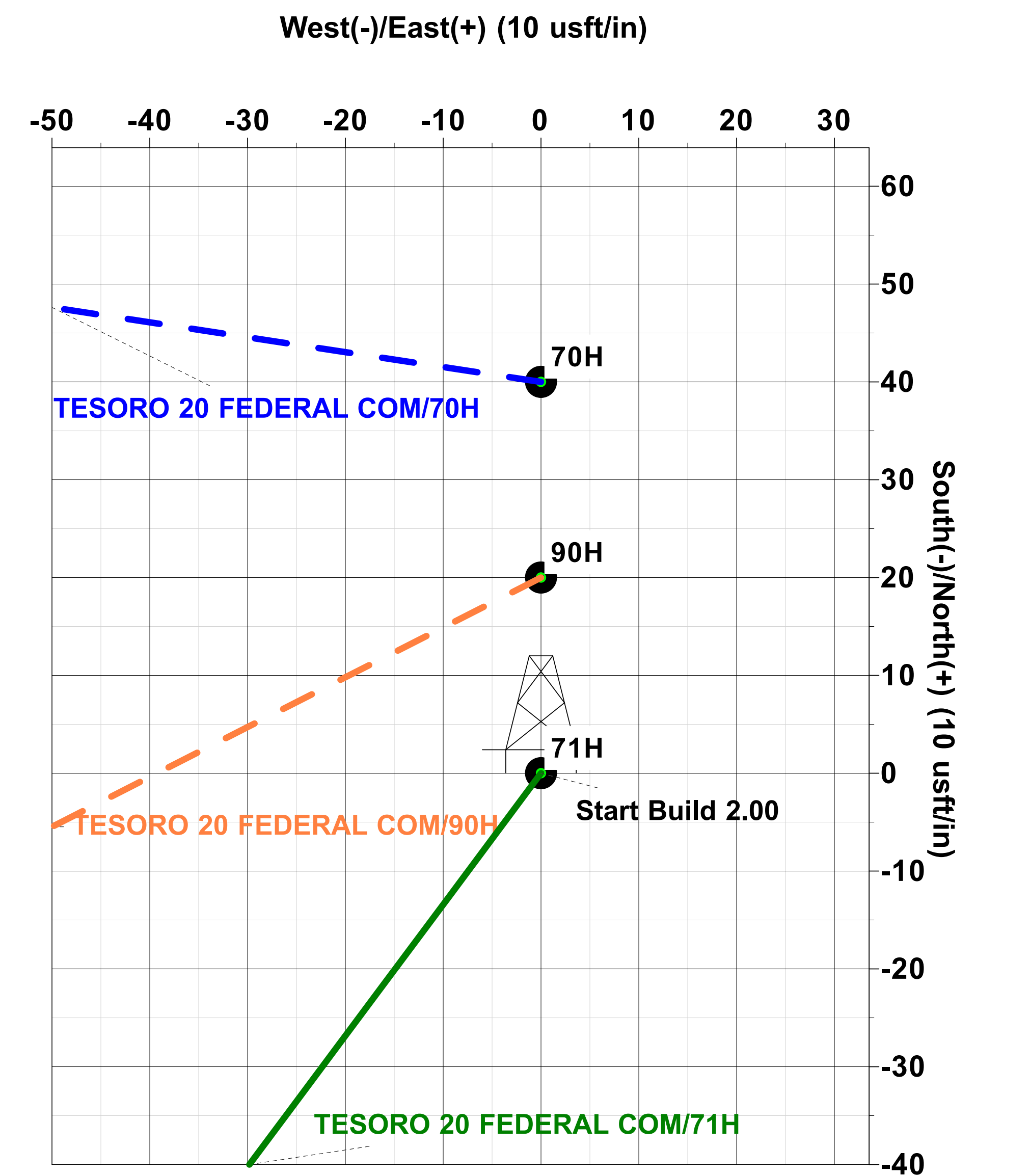
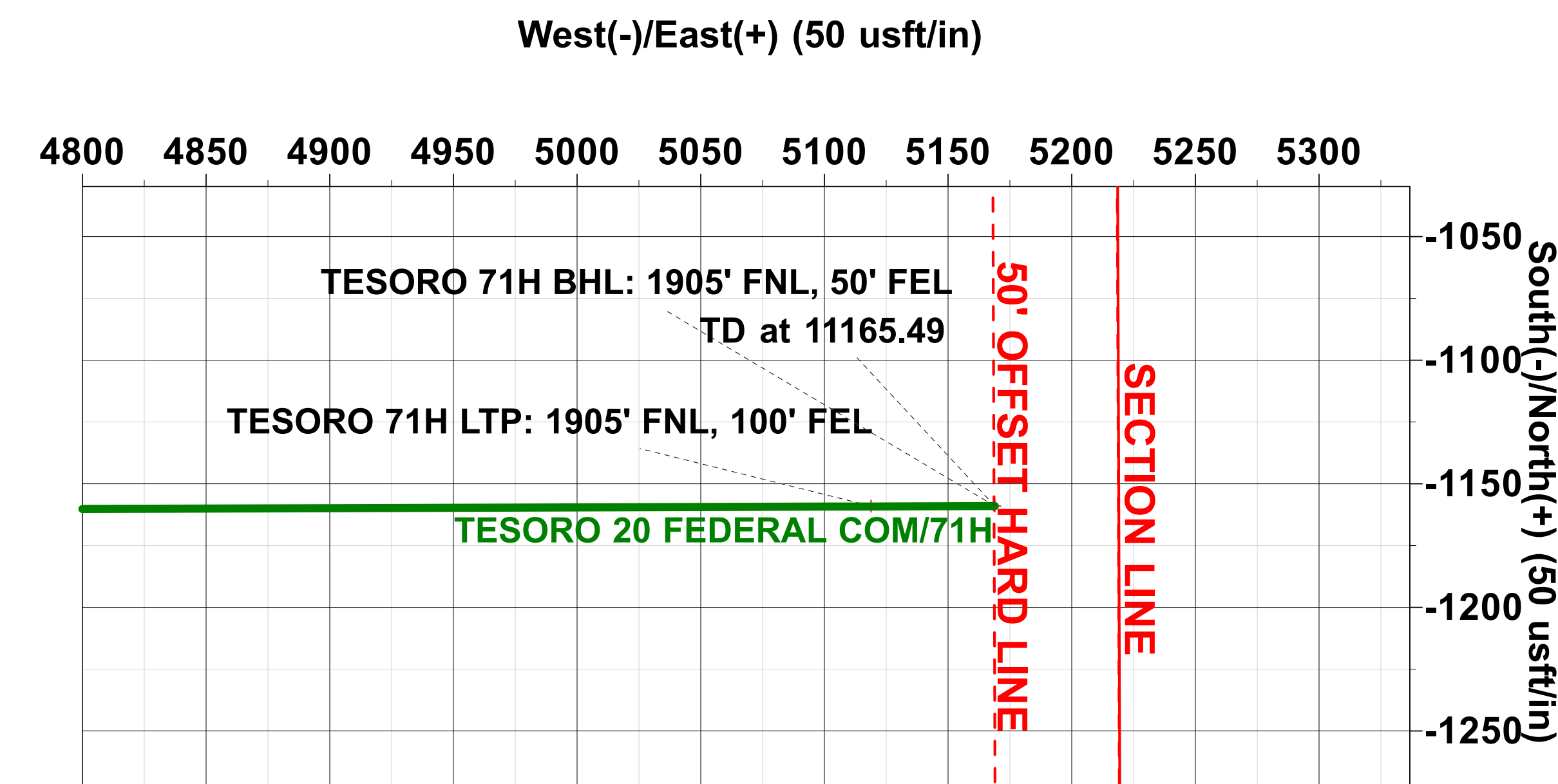
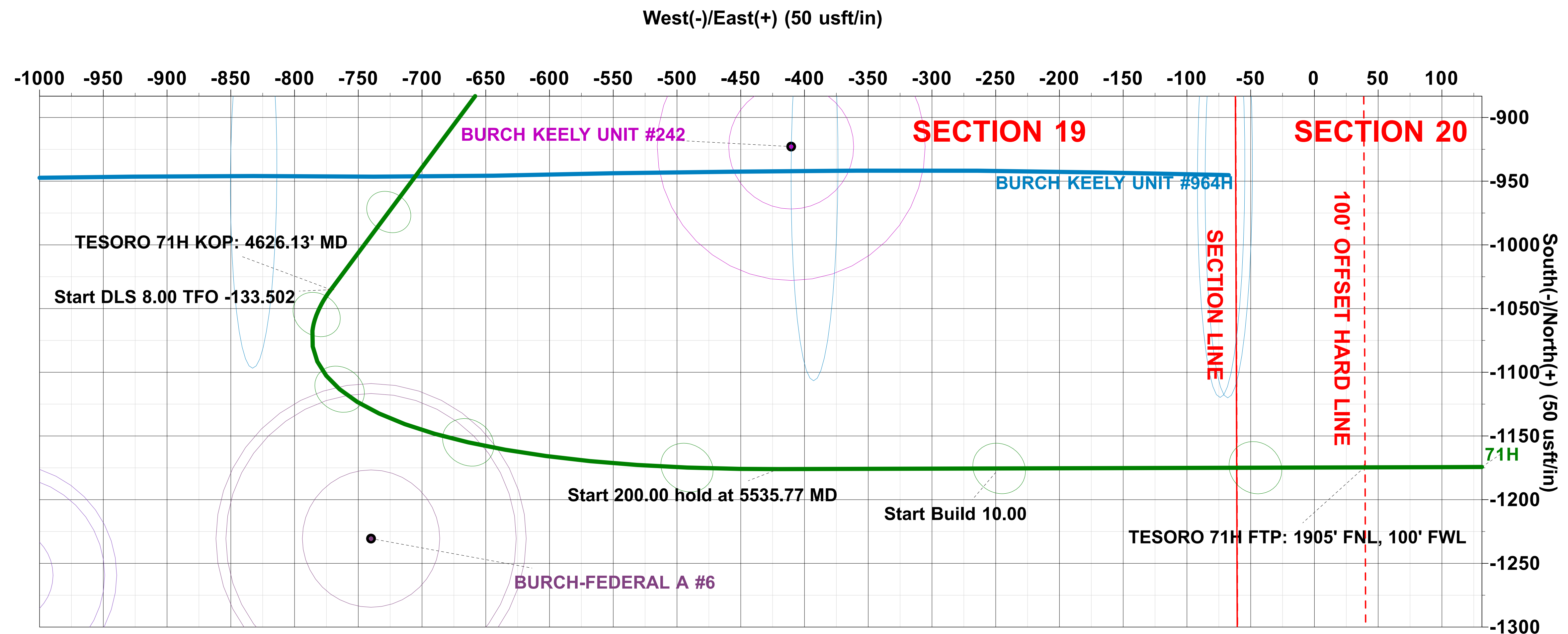
WELL DETAILS: 71H					
Rig Name:		AKITA 57		RKB = 20' @ 3658.00usft (AKITA 57)	
Ground Level:		3638.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	664130.30	642951.90	32.8252844	-104.0025358

SECTION DETAILS								
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
3	1282.31	19.65	216.70	1263.17	-133.72	-99.66	2.00	-100.06
4	4626.13	19.65	216.70	4412.33	-1035.12	-771.49	0.00	-774.56
5	5535.77	60.00	89.83	5173.24	-1176.00	-420.48	8.00	-423.97
6	5735.77	60.00	89.83	5273.24	-1175.47	-247.28	0.00	-250.76
7	6035.77	90.00	89.83	5350.00	-1174.60	39.20	10.00	35.71
8	11115.49	90.00	89.83	5350.00	-1159.15	5118.90	0.00	5115.44
9	11165.49	90.00	89.83	5350.00	-1159.00	5168.90	0.00	5165.44

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
TESORO 71H BHL: 1905' FNL, 50' FEL	5350.00	-1159.00	5168.90	662971.30	648120.80
TESORO 71H FTP: 1905' FNL, 100' FWL	5350.00	-1174.60	39.20	662955.70	642991.10
TESORO 71H KOP: 4626.13' MD	4412.33	-1035.12	-771.49	663095.18	642180.41
TESORO 71H LTP: 1905' FNL, 100' FEL	5350.00	-1159.00	5118.90	662971.30	648070.80
TESORO 71H SHL: 730' FNL, 65' FWL	0.00	0.00	0.00	664130.30	642951.90

PROJECT DETAILS: EDDY COUNTY, NM (NAD 83 - NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level



Vertical Section at 89.83° (200 usft/in)

Project: EDDY COUNTY, NM (NAD 83 - NME)
Site: TESORO 20 FEDERAL COM
Well: 71H
Wellbore: Wellbore #1
Design: PERMIT

Plan: PERMIT (71H/Wellbore #1)

Created By: PROTOTYPE WELL PLANNING / Date: 9:40, July 29 2024

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SPUR ENERGY PARTNERS, LLC

EDDY COUNTY, NM (NAD 83 - NME)

TESORO 20 FEDERAL COM

71H

Wellbore #1

Plan: PERMIT

Standard Planning Report

29 July, 2024



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 71H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site:	TESORO 20 FEDERAL COM	North Reference:	Grid
Well:	71H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Project	EDDY COUNTY, NM (NAD 83 - NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		TESORO 20 FEDERAL COM			
Site Position:		Northing:	664,170.30 usft	Latitude:	32.8253944
From:	Map	Easting:	642,951.90 usft	Longitude:	-104.0025354
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.179

Well	71H					
Well Position	+N/-S	-40.00 usft	Northing:	664,130.30 usft	Latitude:	32.8252844
	+E/-W	0.00 usft	Easting:	642,951.90 usft	Longitude:	-104.0025358
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,638.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	07/24/24	6.430	60.278	47,479

Design	PERMIT				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	89.83	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,282.31	19.65	216.70	1,263.17	-133.72	-99.66	2.00	2.00	0.00	216.698	
4,626.13	19.65	216.70	4,412.33	-1,035.12	-771.49	0.00	0.00	0.00	0.000	
5,535.77	60.00	89.83	5,173.24	-1,176.00	-420.48	8.00	4.44	-13.95	-133.502	
5,735.77	60.00	89.83	5,273.24	-1,175.47	-247.28	0.00	0.00	0.00	0.000	
6,035.77	90.00	89.83	5,350.00	-1,174.60	39.20	10.00	10.00	0.00	0.000	TESORO 71H FTP
11,115.49	90.00	89.83	5,350.00	-1,159.15	5,118.90	0.00	0.00	0.00	0.000	TESORO 71H LTP:
11,165.49	90.00	89.83	5,350.00	-1,159.00	5,168.90	0.00	0.00	0.00	0.000	TESORO 71H BHL



Planning Report

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Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site:	TESORO 20 FEDERAL COM	North Reference:	Grid
Well:	71H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TESORO 71H SHL: 730' FNL, 65' FWL									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	216.70	399.98	-1.40	-1.04	-1.05	2.00	2.00	0.00
500.00	4.00	216.70	499.84	-5.60	-4.17	-4.19	2.00	2.00	0.00
600.00	6.00	216.70	599.45	-12.58	-9.38	-9.42	2.00	2.00	0.00
700.00	8.00	216.70	698.70	-22.35	-16.66	-16.73	2.00	2.00	0.00
800.00	10.00	216.70	797.47	-34.90	-26.01	-26.11	2.00	2.00	0.00
900.00	12.00	216.70	895.62	-50.19	-37.41	-37.56	2.00	2.00	0.00
1,000.00	14.00	216.70	993.06	-68.23	-50.85	-51.06	2.00	2.00	0.00
1,100.00	16.00	216.70	1,089.64	-88.98	-66.32	-66.58	2.00	2.00	0.00
1,200.00	18.00	216.70	1,185.27	-112.42	-83.79	-84.12	2.00	2.00	0.00
1,282.31	19.65	216.70	1,263.17	-133.72	-99.66	-100.06	2.00	2.00	0.00
1,300.00	19.65	216.70	1,279.83	-138.48	-103.21	-103.62	0.00	0.00	0.00
1,400.00	19.65	216.70	1,374.01	-165.44	-123.31	-123.80	0.00	0.00	0.00
1,500.00	19.65	216.70	1,468.19	-192.40	-143.40	-143.97	0.00	0.00	0.00
1,600.00	19.65	216.70	1,562.37	-219.36	-163.49	-164.14	0.00	0.00	0.00
1,700.00	19.65	216.70	1,656.55	-246.31	-183.58	-184.31	0.00	0.00	0.00
1,800.00	19.65	216.70	1,750.73	-273.27	-203.67	-204.48	0.00	0.00	0.00
1,900.00	19.65	216.70	1,844.91	-300.23	-223.76	-224.65	0.00	0.00	0.00
2,000.00	19.65	216.70	1,939.08	-327.19	-243.86	-244.83	0.00	0.00	0.00
2,100.00	19.65	216.70	2,033.26	-354.14	-263.95	-265.00	0.00	0.00	0.00
2,200.00	19.65	216.70	2,127.44	-381.10	-284.04	-285.17	0.00	0.00	0.00
2,300.00	19.65	216.70	2,221.62	-408.06	-304.13	-305.34	0.00	0.00	0.00
2,400.00	19.65	216.70	2,315.80	-435.02	-324.22	-325.51	0.00	0.00	0.00
2,500.00	19.65	216.70	2,409.98	-461.97	-344.32	-345.68	0.00	0.00	0.00
2,600.00	19.65	216.70	2,504.16	-488.93	-364.41	-365.86	0.00	0.00	0.00
2,700.00	19.65	216.70	2,598.34	-515.89	-384.50	-386.03	0.00	0.00	0.00
2,800.00	19.65	216.70	2,692.51	-542.84	-404.59	-406.20	0.00	0.00	0.00
2,900.00	19.65	216.70	2,786.69	-569.80	-424.68	-426.37	0.00	0.00	0.00
3,000.00	19.65	216.70	2,880.87	-596.76	-444.77	-446.54	0.00	0.00	0.00
3,100.00	19.65	216.70	2,975.05	-623.72	-464.87	-466.71	0.00	0.00	0.00
3,200.00	19.65	216.70	3,069.23	-650.67	-484.96	-486.89	0.00	0.00	0.00
3,300.00	19.65	216.70	3,163.41	-677.63	-505.05	-507.06	0.00	0.00	0.00
3,400.00	19.65	216.70	3,257.59	-704.59	-525.14	-527.23	0.00	0.00	0.00
3,500.00	19.65	216.70	3,351.76	-731.55	-545.23	-547.40	0.00	0.00	0.00
3,600.00	19.65	216.70	3,445.94	-758.50	-565.32	-567.57	0.00	0.00	0.00
3,700.00	19.65	216.70	3,540.12	-785.46	-585.42	-587.74	0.00	0.00	0.00
3,800.00	19.65	216.70	3,634.30	-812.42	-605.51	-607.92	0.00	0.00	0.00
3,900.00	19.65	216.70	3,728.48	-839.38	-625.60	-628.09	0.00	0.00	0.00
4,000.00	19.65	216.70	3,822.66	-866.33	-645.69	-648.26	0.00	0.00	0.00
4,100.00	19.65	216.70	3,916.84	-893.29	-665.78	-668.43	0.00	0.00	0.00
4,200.00	19.65	216.70	4,011.02	-920.25	-685.87	-688.60	0.00	0.00	0.00
4,300.00	19.65	216.70	4,105.19	-947.21	-705.97	-708.77	0.00	0.00	0.00
4,400.00	19.65	216.70	4,199.37	-974.16	-726.06	-728.95	0.00	0.00	0.00
4,500.00	19.65	216.70	4,293.55	-1,001.12	-746.15	-749.12	0.00	0.00	0.00
4,600.00	19.65	216.70	4,387.73	-1,028.08	-766.24	-769.29	0.00	0.00	0.00
4,626.13	19.65	216.70	4,412.33	-1,035.12	-771.49	-774.56	0.00	0.00	0.00
TESORO 71H KOP: 4626.13' MD									
4,650.00	18.38	212.30	4,434.91	-1,041.52	-775.90	-778.99	8.00	-5.30	-18.42
4,700.00	16.13	201.11	4,482.67	-1,054.67	-782.62	-785.74	8.00	-4.49	-22.39
4,750.00	14.63	187.08	4,530.89	-1,067.42	-785.90	-789.06	8.00	-3.00	-28.05



Planning Report

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Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site:	TESORO 20 FEDERAL COM	North Reference:	Grid
Well:	71H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	14.12	171.05	4,579.34	-1,079.72	-785.73	-788.93	8.00	-1.03	-32.06
4,850.00	14.69	155.09	4,627.79	-1,091.50	-782.11	-785.35	8.00	1.14	-31.94
4,900.00	16.23	141.20	4,676.00	-1,102.70	-775.06	-778.33	8.00	3.09	-27.77
4,950.00	18.51	130.15	4,723.73	-1,113.27	-764.61	-767.91	8.00	4.56	-22.10
5,000.00	21.29	121.67	4,770.75	-1,123.15	-750.81	-754.14	8.00	5.55	-16.97
5,050.00	24.39	115.15	4,816.83	-1,132.31	-733.73	-737.09	8.00	6.21	-13.03
5,100.00	27.72	110.07	4,861.74	-1,140.69	-713.45	-716.84	8.00	6.65	-10.16
5,150.00	31.19	106.02	4,905.28	-1,148.26	-690.08	-693.48	8.00	6.94	-8.10
5,200.00	34.76	102.72	4,947.22	-1,154.98	-663.72	-667.14	8.00	7.15	-6.61
5,250.00	38.41	99.97	4,987.37	-1,160.81	-634.51	-637.95	8.00	7.30	-5.50
5,300.00	42.12	97.63	5,025.51	-1,165.72	-602.58	-606.03	8.00	7.41	-4.68
5,350.00	45.86	95.60	5,061.48	-1,169.70	-568.09	-571.56	8.00	7.49	-4.05
5,400.00	49.64	93.82	5,095.10	-1,172.72	-531.21	-534.69	8.00	7.55	-3.57
5,450.00	53.44	92.23	5,126.19	-1,174.77	-492.13	-495.61	8.00	7.60	-3.19
5,500.00	57.26	90.78	5,154.62	-1,175.84	-451.02	-454.50	8.00	7.64	-2.89
5,535.77	60.00	89.83	5,173.24	-1,176.00	-420.48	-423.97	8.00	7.67	-2.68
5,600.00	60.00	89.83	5,205.35	-1,175.83	-364.86	-368.34	0.00	0.00	0.00
5,700.00	60.00	89.83	5,255.35	-1,175.57	-278.25	-281.74	0.00	0.00	0.00
5,735.77	60.00	89.83	5,273.24	-1,175.47	-247.28	-250.76	0.00	0.00	0.00
5,750.00	61.42	89.83	5,280.20	-1,175.43	-234.87	-238.35	10.00	10.00	0.00
5,800.00	66.42	89.83	5,302.17	-1,175.30	-189.97	-193.46	10.00	10.00	0.00
5,850.00	71.42	89.83	5,320.15	-1,175.16	-143.33	-146.82	10.00	10.00	0.00
5,900.00	76.42	89.83	5,333.99	-1,175.01	-95.30	-98.79	10.00	10.00	0.00
5,950.00	81.42	89.83	5,343.59	-1,174.86	-46.25	-49.73	10.00	10.00	0.00
6,000.00	86.42	89.83	5,348.88	-1,174.71	3.46	-0.03	10.00	10.00	0.00
6,035.77	90.00	89.83	5,350.00	-1,174.60	39.20	35.71	10.00	10.00	0.00
TESORO 71H FTP: 1905' FNL, 100' FWL									
6,100.00	90.00	89.83	5,350.00	-1,174.40	103.43	99.95	0.00	0.00	0.00
6,200.00	90.00	89.83	5,350.00	-1,174.10	203.43	199.95	0.00	0.00	0.00
6,300.00	90.00	89.83	5,350.00	-1,173.80	303.43	299.95	0.00	0.00	0.00
6,400.00	90.00	89.83	5,350.00	-1,173.49	403.43	399.95	0.00	0.00	0.00
6,500.00	90.00	89.83	5,350.00	-1,173.19	503.43	499.95	0.00	0.00	0.00
6,600.00	90.00	89.83	5,350.00	-1,172.88	603.43	599.95	0.00	0.00	0.00
6,700.00	90.00	89.83	5,350.00	-1,172.58	703.43	699.95	0.00	0.00	0.00
6,800.00	90.00	89.83	5,350.00	-1,172.28	803.43	799.95	0.00	0.00	0.00
6,900.00	90.00	89.83	5,350.00	-1,171.97	903.43	899.95	0.00	0.00	0.00
7,000.00	90.00	89.83	5,350.00	-1,171.67	1,003.43	999.95	0.00	0.00	0.00
7,100.00	90.00	89.83	5,350.00	-1,171.36	1,103.43	1,099.95	0.00	0.00	0.00
7,200.00	90.00	89.83	5,350.00	-1,171.06	1,203.43	1,199.95	0.00	0.00	0.00
7,300.00	90.00	89.83	5,350.00	-1,170.76	1,303.43	1,299.95	0.00	0.00	0.00
7,400.00	90.00	89.83	5,350.00	-1,170.45	1,403.43	1,399.95	0.00	0.00	0.00
7,500.00	90.00	89.83	5,350.00	-1,170.15	1,503.43	1,499.95	0.00	0.00	0.00
7,600.00	90.00	89.83	5,350.00	-1,169.84	1,603.42	1,599.95	0.00	0.00	0.00
7,700.00	90.00	89.83	5,350.00	-1,169.54	1,703.42	1,699.95	0.00	0.00	0.00
7,800.00	90.00	89.83	5,350.00	-1,169.23	1,803.42	1,799.95	0.00	0.00	0.00
7,900.00	90.00	89.83	5,350.00	-1,168.93	1,903.42	1,899.95	0.00	0.00	0.00
8,000.00	90.00	89.83	5,350.00	-1,168.63	2,003.42	1,999.95	0.00	0.00	0.00
8,100.00	90.00	89.83	5,350.00	-1,168.32	2,103.42	2,099.95	0.00	0.00	0.00
8,200.00	90.00	89.83	5,350.00	-1,168.02	2,203.42	2,199.95	0.00	0.00	0.00
8,300.00	90.00	89.83	5,350.00	-1,167.71	2,303.42	2,299.95	0.00	0.00	0.00
8,400.00	90.00	89.83	5,350.00	-1,167.41	2,403.42	2,399.95	0.00	0.00	0.00
8,500.00	90.00	89.83	5,350.00	-1,167.11	2,503.42	2,499.95	0.00	0.00	0.00
8,600.00	90.00	89.83	5,350.00	-1,166.80	2,603.42	2,599.95	0.00	0.00	0.00
8,700.00	90.00	89.83	5,350.00	-1,166.50	2,703.42	2,699.95	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 71H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site:	TESORO 20 FEDERAL COM	North Reference:	Grid
Well:	71H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,800.00	90.00	89.83	5,350.00	-1,166.19	2,803.42	2,799.95	0.00	0.00	0.00
8,900.00	90.00	89.83	5,350.00	-1,165.89	2,903.42	2,899.95	0.00	0.00	0.00
9,000.00	90.00	89.83	5,350.00	-1,165.59	3,003.42	2,999.95	0.00	0.00	0.00
9,100.00	90.00	89.83	5,350.00	-1,165.28	3,103.42	3,099.95	0.00	0.00	0.00
9,200.00	90.00	89.83	5,350.00	-1,164.98	3,203.42	3,199.95	0.00	0.00	0.00
9,300.00	90.00	89.83	5,350.00	-1,164.67	3,303.42	3,299.95	0.00	0.00	0.00
9,400.00	90.00	89.83	5,350.00	-1,164.37	3,403.42	3,399.95	0.00	0.00	0.00
9,500.00	90.00	89.83	5,350.00	-1,164.06	3,503.42	3,499.95	0.00	0.00	0.00
9,600.00	90.00	89.83	5,350.00	-1,163.76	3,603.42	3,599.95	0.00	0.00	0.00
9,700.00	90.00	89.83	5,350.00	-1,163.46	3,703.41	3,699.95	0.00	0.00	0.00
9,800.00	90.00	89.83	5,350.00	-1,163.15	3,803.41	3,799.95	0.00	0.00	0.00
9,900.00	90.00	89.83	5,350.00	-1,162.85	3,903.41	3,899.95	0.00	0.00	0.00
10,000.00	90.00	89.83	5,350.00	-1,162.54	4,003.41	3,999.95	0.00	0.00	0.00
10,100.00	90.00	89.83	5,350.00	-1,162.24	4,103.41	4,099.95	0.00	0.00	0.00
10,200.00	90.00	89.83	5,350.00	-1,161.94	4,203.41	4,199.95	0.00	0.00	0.00
10,300.00	90.00	89.83	5,350.00	-1,161.63	4,303.41	4,299.95	0.00	0.00	0.00
10,400.00	90.00	89.83	5,350.00	-1,161.33	4,403.41	4,399.95	0.00	0.00	0.00
10,500.00	90.00	89.83	5,350.00	-1,161.02	4,503.41	4,499.95	0.00	0.00	0.00
10,600.00	90.00	89.83	5,350.00	-1,160.72	4,603.41	4,599.95	0.00	0.00	0.00
10,700.00	90.00	89.83	5,350.00	-1,160.42	4,703.41	4,699.95	0.00	0.00	0.00
10,800.00	90.00	89.83	5,350.00	-1,160.11	4,803.41	4,799.95	0.00	0.00	0.00
10,900.00	90.00	89.83	5,350.00	-1,159.81	4,903.41	4,899.95	0.00	0.00	0.00
11,000.00	90.00	89.83	5,350.00	-1,159.50	5,003.41	4,999.95	0.00	0.00	0.00
11,100.00	90.00	89.83	5,350.00	-1,159.20	5,103.41	5,099.95	0.00	0.00	0.00
11,115.49	90.00	89.83	5,350.00	-1,159.15	5,118.90	5,115.44	0.00	0.00	0.00
TESORO 71H LTP: 1905' FNL, 100' FEL									
11,165.49	90.00	89.83	5,350.00	-1,159.00	5,168.90	5,165.44	0.00	0.00	0.00
TESORO 71H BHL: 1905' FNL, 50' FEL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TESORO 71H SHL: 7 - hit/miss target - Shape	0.00	0.00	0.00	0.00	0.00	664,130.30	642,951.90	32.8252844	-104.0025358
TESORO 71H KOP: 4 - plan hits target center - Point	0.00	0.00	4,412.33	-1,035.12	-771.49	663,095.18	642,180.41	32.8224459	-104.0050578
TESORO 71H BHL: 1 - plan hits target center - Point	0.00	0.00	5,350.00	-1,159.00	5,168.90	662,971.30	648,120.80	32.8220532	-103.9857216
TESORO 71H LTP: 1 - plan misses target center by 0.15usft at 11115.49usft MD (5350.00 TVD, -1159.15 N, 5118.90 E) - Point	0.00	0.00	5,350.00	-1,159.00	5,118.90	662,971.30	648,070.80	32.8220537	-103.9858843
TESORO 71H FTP: 1 - plan hits target center - Point	0.00	0.00	5,350.00	-1,174.60	39.20	662,955.70	642,991.10	32.8220556	-104.0024202



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 71H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site:	TESORO 20 FEDERAL COM	North Reference:	Grid
Well:	71H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		



SPUR ENERGY PARTNERS, LLC

**EDDY COUNTY, NM (NAD 83 - NME)
TESORO 20 FEDERAL COM
71H**

**Wellbore #1
PERMIT**

Anticollision Report

29 July, 2024



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Reference	PERMIT
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 50.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 3,000.00 us
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program		Date	07/25/24		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	11,165.49	PERMIT (Wellbore #1)	MWD+IFR1+SAG+FDIR	OWSG MWD + IFR1 + Sag + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
OCHO_TESORO OFFSETS						
BURCH A #31 - Wellbore #1 - Wellbore #1	4,230.57	3,410.00	2,066.22	1,988.83	26.700	CC, ES
BURCH A #31 - Wellbore #1 - Wellbore #1	4,450.00	3,410.00	2,077.84	1,999.60	26.556	SF
BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1	4,924.26	8,740.57	883.22	739.38	6.140	CC
BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1	4,950.00	8,746.37	883.51	739.26	6.125	ES
BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1	5,100.00	8,793.63	895.91	748.73	6.087	SF
BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1	300.00	289.00	575.10	570.66	129.418	CC
BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1	750.00	737.15	580.47	565.61	39.081	ES
BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1	5,450.00	5,065.00	1,574.87	1,449.88	12.600	SF
BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1	3,716.43	3,539.83	222.41	134.54	2.531	CC
BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1	3,750.00	3,571.45	222.69	133.92	2.509	ES
BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1	3,850.00	3,665.63	226.90	135.60	2.485	SF
BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1	5,440.80	4,870.00	1,719.11	1,588.68	13.180	CC
BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1	5,450.00	4,870.00	1,719.14	1,588.67	13.177	ES
BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1	5,500.00	4,870.00	1,720.48	1,589.84	13.169	SF
BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1	2,087.41	2,008.64	189.23	133.85	3.417	CC
BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1	2,150.00	2,067.59	190.39	133.42	3.342	ES
BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1	2,200.00	2,114.67	192.97	134.79	3.317	SF
BURCH KEELY UNIT #656 - Wellbore #1 - Wellbore #1	4,878.08	4,648.04	296.03	191.55	2.834	CC, ES, SF
BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1	5,269.90	4,768.00	1,083.70	1,047.69	30.094	CC, ES
BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1	5,350.00	4,768.00	1,086.95	1,050.77	30.038	SF
BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1	4,749.21	9,619.26	1,484.39	1,319.25	8.989	CC
BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1	4,750.00	9,619.23	1,484.39	1,319.24	8.988	ES
BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1	5,850.00	10,290.00	1,586.86	1,401.55	8.563	SF
BURCH KEELY UNIT #964H - Wellbore #1 - Wellbore #1	5,101.36	9,701.59	197.43	26.19	1.153	Level 2, CC, ES, SF
BURCH KEELY UNIT #965H - Wellbore #1 - Wellbore #1	5,124.21	4,877.76	434.18	398.49	12.166	CC, ES, SF
BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1	5,312.93	9,286.67	1,108.03	947.89	6.919	CC
BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1	5,350.00	9,312.00	1,108.55	947.54	6.885	ES
BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1	5,500.00	9,430.26	1,119.01	955.07	6.825	SF
BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1	5,286.34	9,036.86	1,722.32	1,566.83	11.077	CC
BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1	5,350.00	9,084.67	1,723.48	1,566.39	10.971	ES
BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1	5,550.00	9,232.00	1,739.58	1,578.56	10.803	SF
BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1	2,098.87	2,008.20	192.90	110.66	2.346	CC
BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1	2,150.00	2,056.35	193.67	109.32	2.296	ES
BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1	2,250.00	2,150.53	199.48	111.21	2.260	SF
BURCH-FEDERAL A #11 - Wellbore #1 - Wellbore #1	3,813.17	3,262.00	1,455.94	1,320.73	10.768	CC, ES
BURCH-FEDERAL A #11 - Wellbore #1 - Wellbore #1	3,900.00	3,262.00	1,458.53	1,322.97	10.759	SF
BURCH-FEDERAL A #6 - Wellbore #1 - Wellbore #1	3,548.59	3,195.00	549.68	421.89	4.301	CC

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
OCHO_TESORO OFFSETS						
BURCH-FEDERAL A #6 - Wellbore #1 - Wellbore #1	3,550.00	3,195.00	549.68	421.88	4.301	ES, SF
JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1	300.00	296.00	527.86	523.47	120.474	CC
JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1	350.00	346.00	528.29	522.76	95.514	ES
JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1	6,450.00	5,346.18	1,577.04	1,451.58	12.570	SF
MCINTIRE A #8 - Wellbore #1 - Wellbore #1	9,548.74	5,336.11	1,726.94	1,523.52	8.489	CC
MCINTIRE A #8 - Wellbore #1 - Wellbore #1	9,550.00	5,336.11	1,726.94	1,523.50	8.489	ES
MCINTIRE A #8 - Wellbore #1 - Wellbore #1	9,700.00	5,336.11	1,733.55	1,528.56	8.457	SF
MCINTYRE A #17 - Wellbore #1 - Wellbore #1	9,573.63	5,052.00	1,626.87	1,446.64	9.027	CC
MCINTYRE A #17 - Wellbore #1 - Wellbore #1	9,600.00	5,052.00	1,627.08	1,446.58	9.015	ES
MCINTYRE A #17 - Wellbore #1 - Wellbore #1	9,700.00	5,052.00	1,631.77	1,450.25	8.990	SF
MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1	10,679.71	5,350.00	1,794.72	1,622.34	10.411	CC
MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1	10,700.00	5,350.00	1,794.84	1,622.24	10.399	ES
MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1	10,900.00	5,350.00	1,808.19	1,633.45	10.348	SF
MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1	10,362.96	5,141.00	955.75	703.15	3.784	CC, ES
MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1	10,400.00	5,141.00	956.47	703.49	3.781	SF
MCINTYRE B #9 - Wellbore #1 - Wellbore #1	7,019.16	5,332.39	1,725.71	1,579.91	11.836	CC, ES
MCINTYRE B #9 - Wellbore #1 - Wellbore #1	7,200.00	5,332.39	1,735.16	1,587.98	11.790	SF
MCINTYRE E #8 - Wellbore #1 - Wellbore #1	8,169.44	5,020.00	1,755.60	1,593.98	10.862	CC
MCINTYRE E #8 - Wellbore #1 - Wellbore #1	8,200.00	5,020.00	1,755.87	1,593.96	10.845	ES
MCINTYRE E #8 - Wellbore #1 - Wellbore #1	8,350.00	5,020.00	1,764.86	1,601.56	10.807	SF
MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1	7,569.30	5,327.51	1,725.96	1,572.98	11.282	CC, ES
MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1	7,750.00	5,327.51	1,735.40	1,580.83	11.228	SF
MCINTYRE W D 'C' #7 - Wellbore #1 - Wellbore #1	10,871.17	5,037.00	506.45	440.51	7.680	CC, ES
MCINTYRE W D 'C' #7 - Wellbore #1 - Wellbore #1	10,900.00	5,037.00	507.27	441.08	7.663	SF
MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1	10,794.75	5,336.00	1,730.51	1,460.34	6.405	CC
MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1	10,800.00	5,336.00	1,730.52	1,460.29	6.404	ES
MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1	10,900.00	5,336.00	1,733.71	1,462.41	6.390	SF
THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1	8,897.03	5,360.17	1,573.88	1,426.69	10.693	CC
THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1	8,900.00	5,360.17	1,573.88	1,426.66	10.691	ES
THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1	9,050.00	5,360.17	1,581.29	1,432.56	10.632	SF
THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1	8,886.98	5,351.23	227.69	75.61	1.497	Level 3, CC, ES, SF
W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1	7,899.37	5,342.00	1,726.13	1,485.06	7.161	CC
W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1	7,900.00	5,342.00	1,726.13	1,485.06	7.160	ES
W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1	8,000.00	5,342.00	1,729.06	1,487.07	7.145	SF
W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1	10,866.86	5,366.65	912.36	714.33	4.607	CC, ES
W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1	10,900.00	5,366.65	912.96	714.58	4.602	SF
W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1	10,206.16	5,310.00	1,573.70	1,406.18	9.394	CC, ES
W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1	10,350.00	5,310.00	1,580.26	1,411.22	9.348	SF
TESORO 20 FEDERAL COM						
70H - Wellbore #1 - PERMIT	300.00	300.00	40.00	38.28	23.247	CC, ES
70H - Wellbore #1 - PERMIT	11,165.49	10,893.39	1,394.23	1,260.42	10.420	SF
90H - Wellbore #1 - PERMIT	300.00	300.00	20.00	18.28	11.623	CC
90H - Wellbore #1 - PERMIT	350.00	350.16	20.15	18.08	9.733	ES
90H - Wellbore #1 - PERMIT	11,165.49	11,429.08	744.67	619.04	5.928	SF

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:		0.00 usft
Survey Program: 498-INC-ONLY													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
650.00	649.13	614.13	649.13	2.08	6.42	-20.978	-2,902.21	-832.56	2,999.30	2,990.73	8.57	349.975			
700.00	698.70	663.70	698.70	2.26	7.31	-21.067	-2,902.21	-832.56	2,993.20	2,983.57	9.63	310.745			
750.00	748.15	713.15	748.15	2.44	8.20	-21.168	-2,902.21	-832.56	2,986.30	2,975.61	10.69	279.427			
800.00	797.47	762.47	797.47	2.62	9.09	-21.282	-2,902.21	-832.56	2,978.59	2,966.86	11.73	253.891			
850.00	846.63	811.63	846.63	2.80	9.97	-21.408	-2,902.21	-832.56	2,970.09	2,957.32	12.77	232.626			
900.00	895.62	860.62	895.62	2.99	10.86	-21.548	-2,902.21	-832.56	2,960.79	2,947.00	13.79	214.717			
950.00	944.44	909.44	944.44	3.18	11.74	-21.701	-2,902.21	-832.56	2,950.69	2,935.89	14.80	199.352			
1,000.00	993.06	976.00	1,011.00	3.37	12.94	-21.900	-2,902.21	-832.56	2,939.87	2,923.76	16.11	182.517			
1,050.00	1,041.46	1,006.46	1,041.46	3.56	13.51	-22.048	-2,902.21	-832.56	2,928.15	2,911.35	16.80	174.243			
1,100.00	1,089.64	1,054.64	1,089.64	3.76	14.42	-22.244	-2,902.21	-832.56	2,915.71	2,897.90	17.81	163.683			
1,150.00	1,137.58	1,102.58	1,137.58	3.96	15.32	-22.453	-2,902.21	-832.56	2,902.50	2,883.70	18.80	154.348			
1,200.00	1,185.27	1,150.27	1,185.27	4.16	16.22	-22.679	-2,902.21	-832.56	2,888.52	2,868.74	19.78	146.029			
1,250.00	1,232.68	1,197.69	1,232.68	4.36	17.12	-22.919	-2,902.21	-832.56	2,873.79	2,853.05	20.74	138.569			
1,300.00	1,279.83	1,244.84	1,279.83	4.57	18.00	-23.130	-2,902.21	-832.56	2,858.34	2,836.64	21.71	131.681			
1,350.00	1,326.92	1,291.92	1,326.92	4.78	18.89	-23.262	-2,902.21	-832.56	2,842.75	2,820.04	22.72	125.127			
1,400.00	1,374.01	1,339.01	1,374.01	4.99	19.78	-23.395	-2,902.21	-832.56	2,827.18	2,803.45	23.73	119.118			
1,450.00	1,421.10	1,386.10	1,421.10	5.20	20.67	-23.530	-2,902.21	-832.56	2,811.62	2,786.87	24.75	113.593			
1,500.00	1,468.19	1,444.00	1,478.99	5.41	21.76	-23.698	-2,902.21	-832.56	2,796.09	2,770.13	25.96	107.693			
1,550.00	1,515.28	1,480.29	1,515.28	5.63	22.49	-23.804	-2,902.21	-832.56	2,780.54	2,753.71	26.83	103.622			
1,600.00	1,562.37	1,527.38	1,562.37	5.84	23.43	-23.943	-2,902.21	-832.56	2,765.02	2,737.12	27.91	99.072			
1,650.00	1,609.46	1,574.47	1,609.46	6.06	24.37	-24.084	-2,902.21	-832.56	2,749.52	2,720.54	28.99	94.854			
1,700.00	1,656.55	1,621.56	1,656.55	6.27	25.32	-24.227	-2,902.21	-832.56	2,734.04	2,703.97	30.07	90.935			
1,750.00	1,703.64	1,668.65	1,703.64	6.49	26.26	-24.371	-2,902.21	-832.56	2,718.57	2,687.42	31.15	87.284			
1,800.00	1,750.73	1,715.73	1,750.73	6.71	27.20	-24.516	-2,902.21	-832.56	2,703.11	2,670.88	32.23	83.874			
1,850.00	1,797.82	1,762.82	1,797.82	6.93	28.15	-24.663	-2,902.21	-832.56	2,687.68	2,654.36	33.31	80.684			
1,900.00	1,844.91	1,809.91	1,844.91	7.14	29.09	-24.812	-2,902.21	-832.56	2,672.25	2,637.86	34.40	77.692			
1,950.00	1,892.00	1,857.00	1,892.00	7.36	30.03	-24.963	-2,902.21	-832.56	2,656.85	2,621.37	35.48	74.881			
2,000.00	1,939.08	1,904.00	1,977.98	7.58	31.76	-25.242	-2,902.21	-832.56	2,641.75	2,604.44	37.31	70.804			
2,050.00	1,986.17	1,951.20	1,986.17	7.80	31.93	-25.269	-2,902.21	-832.56	2,626.09	2,588.43	37.67	69.718			
2,100.00	2,033.26	1,998.29	2,033.26	8.02	32.95	-25.425	-2,902.21	-832.56	2,610.74	2,571.92	38.82	67.248			
2,150.00	2,080.35	2,045.37	2,080.35	8.24	33.96	-25.583	-2,902.21	-832.56	2,595.41	2,555.43	39.98	64.919			
2,200.00	2,127.44	2,092.46	2,127.44	8.46	34.97	-25.742	-2,902.21	-832.56	2,580.09	2,538.95	41.14	62.720			
2,250.00	2,174.53	2,139.55	2,174.53	8.68	35.99	-25.904	-2,902.21	-832.56	2,564.79	2,522.50	42.30	60.640			
2,300.00	2,221.62	2,186.64	2,221.62	8.90	37.00	-26.067	-2,902.21	-832.56	2,549.52	2,506.06	43.45	58.671			
2,350.00	2,268.71	2,233.73	2,268.71	9.12	38.01	-26.232	-2,902.21	-832.56	2,534.26	2,489.64	44.62	56.802			
2,400.00	2,315.80	2,280.82	2,315.80	9.34	39.03	-26.399	-2,902.21	-832.56	2,519.02	2,473.24	45.78	55.029			
2,450.00	2,362.89	2,327.91	2,362.89	9.56	40.04	-26.568	-2,902.21	-832.56	2,503.80	2,456.86	46.94	53.342			
2,500.00	2,409.98	2,375.00	2,409.98	9.78	41.05	-26.739	-2,902.21	-832.56	2,488.60	2,440.50	48.10	51.736			
2,550.00	2,457.07	2,441.00	2,475.95	10.00	42.47	-26.982	-2,902.21	-832.56	2,473.50	2,423.84	49.66	49.812			
2,600.00	2,504.16	2,469.20	2,504.16	10.22	43.11	-27.088	-2,902.21	-832.56	2,458.27	2,407.81	50.46	48.719			
2,650.00	2,551.25	2,516.29	2,551.25	10.44	44.17	-27.265	-2,902.21	-832.56	2,443.14	2,391.47	51.67	47.284			
2,700.00	2,598.34	2,563.38	2,598.34	10.67	45.23	-27.445	-2,902.21	-832.56	2,428.02	2,375.14	52.88	45.915			
2,750.00	2,645.42	2,610.47	2,645.42	10.89	46.29	-27.626	-2,902.21	-832.56	2,412.93	2,358.84	54.09	44.607			
2,800.00	2,692.51	2,657.56	2,692.51	11.11	47.35	-27.810	-2,902.21	-832.56	2,397.87	2,342.56	55.31	43.356			
2,850.00	2,739.60	2,704.65	2,739.60	11.33	48.41	-27.997	-2,902.21	-832.56	2,382.82	2,326.30	56.52	42.158			
2,900.00	2,786.69	2,751.74	2,786.69	11.55	49.47	-28.185	-2,902.21	-832.56	2,367.80	2,310.07	57.74	41.010			
2,950.00	2,833.78	2,798.83	2,833.78	11.77	50.53	-28.376	-2,902.21	-832.56	2,352.81	2,293.85	58.95	39.910			
3,000.00	2,880.87	2,845.92	2,880.87	12.00	51.60	-28.569	-2,902.21	-832.56	2,337.84	2,277.67	60.17	38.854			
3,050.00	2,927.96	2,920.00	2,954.92	12.22	53.26	-28.878	-2,902.21	-832.56	2,323.05	2,261.07	61.98	37.483			
3,100.00	2,975.05	2,940.14	2,975.05	12.44	53.72	-28.963	-2,902.21	-832.56	2,307.97	2,245.36	62.61	36.861			
3,150.00	3,022.14	2,987.22	3,022.14	12.66	54.79	-29.164	-2,902.21	-832.56	2,293.08	2,229.24	63.84	35.918			
3,200.00	3,069.23	3,034.31	3,069.23	12.89	55.86	-29.367	-2,902.21	-832.56	2,278.21	2,213.14	65.07	35.010			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 498-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,250.00	3,116.32	3,081.40	3,116.32	13.11	56.94	-29.573	-2,902.21	-832.56	2,263.37	2,197.07	66.30	34.136	
3,300.00	3,163.41	3,128.49	3,163.41	13.33	58.01	-29.781	-2,902.21	-832.56	2,248.56	2,181.02	67.54	33.293	
3,350.00	3,210.50	3,175.58	3,210.50	13.55	59.08	-29.992	-2,902.21	-832.56	2,233.77	2,165.00	68.77	32.481	
3,400.00	3,257.59	3,222.67	3,257.59	13.78	60.15	-30.206	-2,902.21	-832.56	2,219.02	2,149.01	70.01	31.697	
3,450.00	3,304.68	3,269.76	3,304.68	14.00	61.22	-30.423	-2,902.21	-832.56	2,204.29	2,133.05	71.24	30.941	
3,500.00	3,351.76	3,316.85	3,351.76	14.22	62.29	-30.642	-2,902.21	-832.56	2,189.60	2,117.12	72.48	30.210	
3,550.00	3,398.85	3,363.94	3,398.85	14.44	63.36	-30.864	-2,902.21	-832.56	2,174.93	2,101.22	73.72	29.504	
3,600.00	3,445.94	3,410.00	3,444.88	14.67	64.41	-31.085	-2,902.21	-832.56	2,160.30	2,085.37	74.93	28.830	
3,650.00	3,493.03	3,410.00	3,444.88	14.89	64.41	-31.085	-2,902.21	-832.56	2,146.24	2,071.11	75.13	28.568	
3,700.00	3,540.12	3,410.00	3,444.88	15.11	64.41	-31.085	-2,902.21	-832.56	2,133.26	2,057.93	75.32	28.322	
3,750.00	3,587.21	3,410.00	3,444.88	15.34	64.41	-31.085	-2,902.21	-832.56	2,121.37	2,045.86	75.52	28.091	
3,800.00	3,634.30	3,410.00	3,444.88	15.56	64.41	-31.085	-2,902.21	-832.56	2,110.61	2,034.90	75.71	27.877	
3,850.00	3,681.39	3,410.00	3,444.88	15.78	64.41	-31.085	-2,902.21	-832.56	2,100.98	2,025.07	75.91	27.679	
3,900.00	3,728.48	3,410.00	3,444.88	16.01	64.41	-31.085	-2,902.21	-832.56	2,092.50	2,016.40	76.10	27.496	
3,950.00	3,775.57	3,410.00	3,444.88	16.23	64.41	-31.085	-2,902.21	-832.56	2,085.18	2,008.89	76.30	27.330	
4,000.00	3,822.66	3,410.00	3,444.88	16.45	64.41	-31.085	-2,902.21	-832.56	2,079.05	2,002.56	76.49	27.181	
4,050.00	3,869.75	3,410.00	3,444.88	16.67	64.41	-31.085	-2,902.21	-832.56	2,074.10	1,997.41	76.68	27.047	
4,100.00	3,916.84	3,410.00	3,444.88	16.90	64.41	-31.085	-2,902.21	-832.56	2,070.34	1,993.46	76.88	26.930	
4,150.00	3,963.93	3,410.00	3,444.88	17.12	64.41	-31.085	-2,902.21	-832.56	2,067.79	1,990.72	77.07	26.829	
4,200.00	4,011.02	3,410.00	3,444.88	17.34	64.41	-31.085	-2,902.21	-832.56	2,066.45	1,989.18	77.27	26.744	
4,230.57	4,039.81	3,410.00	3,444.88	17.48	64.41	-31.085	-2,902.21	-832.56	2,066.22	1,988.83	77.39	26.700 CC, ES	
4,250.00	4,058.10	3,410.00	3,444.88	17.57	64.41	-31.085	-2,902.21	-832.56	2,066.31	1,988.85	77.46	26.675	
4,300.00	4,105.19	3,410.00	3,444.88	17.79	64.41	-31.085	-2,902.21	-832.56	2,067.39	1,989.73	77.66	26.622	
4,350.00	4,152.28	3,410.00	3,444.88	18.01	64.41	-31.085	-2,902.21	-832.56	2,069.67	1,991.82	77.85	26.584	
4,400.00	4,199.37	3,410.00	3,444.88	18.24	64.41	-31.085	-2,902.21	-832.56	2,073.16	1,995.11	78.05	26.562	
4,450.00	4,246.46	3,410.00	3,444.88	18.46	64.41	-31.085	-2,902.21	-832.56	2,077.84	1,999.60	78.24	26.556 SF	
4,500.00	4,293.55	3,410.00	3,444.88	18.68	64.41	-31.085	-2,902.21	-832.56	2,083.71	2,005.27	78.44	26.565	
4,550.00	4,340.64	3,410.00	3,444.88	18.91	64.41	-31.085	-2,902.21	-832.56	2,090.77	2,012.13	78.63	26.589	
4,600.00	4,387.73	3,410.00	3,444.88	19.13	64.41	-31.085	-2,902.21	-832.56	2,098.99	2,020.16	78.83	26.627	
4,650.00	4,434.91	3,410.00	3,444.88	19.35	64.41	-27.302	-2,902.21	-832.56	2,108.44	2,029.25	79.19	26.625	
4,700.00	4,482.67	3,410.00	3,444.88	19.57	64.41	-17.509	-2,902.21	-832.56	2,119.65	2,039.95	79.70	26.595	
4,750.00	4,530.89	3,410.00	3,444.88	19.77	64.41	-5.037	-2,902.21	-832.56	2,132.61	2,052.45	80.16	26.604	
4,800.00	4,579.34	3,410.00	3,444.88	19.95	64.41	9.288	-2,902.21	-832.56	2,147.25	2,066.69	80.56	26.652	
4,850.00	4,627.79	3,410.00	3,444.88	20.12	64.41	23.405	-2,902.21	-832.56	2,163.45	2,082.54	80.91	26.739	
4,900.00	4,676.00	3,410.00	3,444.88	20.28	64.41	35.295	-2,902.21	-832.56	2,181.10	2,099.91	81.19	26.863	
4,950.00	4,723.73	3,410.00	3,444.88	20.42	64.41	44.209	-2,902.21	-832.56	2,200.09	2,118.68	81.41	27.024	
5,000.00	4,770.75	3,410.00	3,444.88	20.54	64.41	50.430	-2,902.21	-832.56	2,220.28	2,138.73	81.56	27.224	
5,050.00	4,816.83	3,410.00	3,444.88	20.66	64.41	54.556	-2,902.21	-832.56	2,241.55	2,159.94	81.61	27.465	
5,100.00	4,861.74	3,410.00	3,444.88	20.76	64.41	57.139	-2,902.21	-832.56	2,263.77	2,182.19	81.58	27.751	
5,150.00	4,905.28	3,410.00	3,444.88	20.86	64.41	58.594	-2,902.21	-832.56	2,286.79	2,205.37	81.42	28.087	
5,200.00	4,947.22	3,410.00	3,444.88	20.94	64.41	59.219	-2,902.21	-832.56	2,310.49	2,229.37	81.12	28.482	
5,250.00	4,987.37	3,410.00	3,444.88	21.01	64.41	59.228	-2,902.21	-832.56	2,334.73	2,254.07	80.66	28.944	
5,300.00	5,025.51	3,410.00	3,444.88	21.07	64.41	58.774	-2,902.21	-832.56	2,359.39	2,279.36	80.02	29.484	
5,350.00	5,061.48	3,410.00	3,444.88	21.13	64.41	57.975	-2,902.21	-832.56	2,384.31	2,305.13	79.18	30.111	
5,400.00	5,095.10	3,410.00	3,444.88	21.18	64.41	56.917	-2,902.21	-832.56	2,409.39	2,331.26	78.13	30.838	
5,450.00	5,126.19	3,410.00	3,444.88	21.21	64.41	55.671	-2,902.21	-832.56	2,434.50	2,357.63	76.86	31.673	
5,500.00	5,154.62	3,410.00	3,444.88	21.25	64.41	54.292	-2,902.21	-832.56	2,459.50	2,384.11	75.39	32.624	
5,550.00	5,180.35	3,410.00	3,444.88	21.27	64.41	53.249	-2,902.21	-832.56	2,484.34	2,410.09	74.25	33.461	
5,600.00	5,205.35	3,410.00	3,444.88	21.30	64.41	53.249	-2,902.21	-832.56	2,509.67	2,435.32	74.35	33.756	
5,650.00	5,230.35	3,410.00	3,444.88	21.33	64.41	53.249	-2,902.21	-832.56	2,535.73	2,461.26	74.46	34.053	
5,700.00	5,255.35	3,410.00	3,444.88	21.36	64.41	53.249	-2,902.21	-832.56	2,562.50	2,487.92	74.58	34.359	
5,750.00	5,280.20	3,410.00	3,444.88	21.40	64.41	52.506	-2,902.21	-832.56	2,589.87	2,515.95	73.91	35.039	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH A #31 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 498-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,800.00	5,302.17	3,410.00	3,444.88	21.44	64.41	50.083	-2,902.21	-832.56	2,616.24	2,545.05	71.19	36.752		
5,850.00	5,320.15	3,410.00	3,444.88	21.48	64.41	47.942	-2,902.21	-832.56	2,640.91	2,572.45	68.46	38.575		
5,900.00	5,333.99	3,410.00	3,444.88	21.52	64.41	46.064	-2,902.21	-832.56	2,663.74	2,597.84	65.90	40.422		
5,950.00	5,343.59	3,410.00	3,444.88	21.56	64.41	44.433	-2,902.21	-832.56	2,684.61	2,620.96	63.66	42.173		
6,000.00	5,348.88	3,410.00	3,444.88	21.60	64.41	43.030	-2,902.21	-832.56	2,703.41	2,641.52	61.89	43.683		
6,050.00	5,350.00	3,410.00	3,444.88	21.64	64.41	42.159	-2,902.21	-832.56	2,720.16	2,659.13	61.03	44.574		
6,100.00	5,350.00	3,410.00	3,444.88	21.69	64.41	42.159	-2,902.21	-832.56	2,736.95	2,675.77	61.18	44.735		
6,150.00	5,350.00	3,410.00	3,444.88	21.77	64.41	42.159	-2,902.21	-832.56	2,754.54	2,693.19	61.35	44.897		
6,200.00	5,350.00	3,410.00	3,444.88	21.87	64.41	42.159	-2,902.21	-832.56	2,772.93	2,711.41	61.52	45.072		
6,250.00	5,350.00	3,410.00	3,444.88	21.99	64.41	42.159	-2,902.21	-832.56	2,792.09	2,730.38	61.71	45.247		
6,300.00	5,350.00	3,410.00	3,444.88	22.14	64.41	42.159	-2,902.21	-832.56	2,812.01	2,750.11	61.89	45.433		
6,350.00	5,350.00	3,410.00	3,444.88	22.32	64.41	42.159	-2,902.21	-832.56	2,832.67	2,770.58	62.09	45.620		
6,400.00	5,350.00	3,410.00	3,444.88	22.51	64.41	42.159	-2,902.21	-832.56	2,854.06	2,791.76	62.29	45.817		
6,450.00	5,350.00	3,410.00	3,444.88	22.74	64.41	42.159	-2,902.21	-832.56	2,876.15	2,813.65	62.50	46.015		
6,500.00	5,350.00	3,410.00	3,444.88	22.98	64.41	42.159	-2,902.21	-832.56	2,898.94	2,836.23	62.72	46.222		
6,550.00	5,350.00	3,410.00	3,444.88	23.24	64.41	42.159	-2,902.21	-832.56	2,922.41	2,859.47	62.94	46.430		
6,600.00	5,350.00	3,410.00	3,444.88	23.52	64.41	42.159	-2,902.21	-832.56	2,946.55	2,883.38	63.17	46.646		
6,650.00	5,350.00	3,410.00	3,444.88	23.81	64.41	42.159	-2,902.21	-832.56	2,971.32	2,907.92	63.40	46.863		
6,700.00	5,350.00	3,410.00	3,444.88	24.11	64.41	42.159	-2,902.21	-832.56	2,996.73	2,933.09	63.64	47.088		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 4262-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,950.00	1,892.00	9,103.00	4,884.46	7.36	139.72	168.324	-233.41	-421.64	2,999.43	2,871.39	128.04	23.426	
2,000.00	1,939.08	9,103.00	4,884.46	7.58	139.72	168.324	-233.41	-421.64	2,952.23	2,824.01	128.22	23.025	
2,050.00	1,986.17	9,103.00	4,884.46	7.80	139.72	168.324	-233.41	-421.64	2,905.12	2,776.72	128.40	22.625	
2,100.00	2,033.26	9,103.00	4,884.46	8.02	139.72	168.324	-233.41	-421.64	2,858.11	2,729.52	128.58	22.227	
2,150.00	2,080.35	9,103.00	4,884.46	8.24	139.72	168.324	-233.41	-421.64	2,811.20	2,682.43	128.77	21.832	
2,200.00	2,127.44	9,103.00	4,884.46	8.46	139.72	168.324	-233.41	-421.64	2,764.40	2,635.45	128.95	21.438	
2,250.00	2,174.53	9,103.00	4,884.46	8.68	139.72	168.324	-233.41	-421.64	2,717.71	2,588.58	129.13	21.046	
2,300.00	2,221.62	9,103.00	4,884.46	8.90	139.72	168.324	-233.41	-421.64	2,671.15	2,541.83	129.32	20.656	
2,350.00	2,268.71	9,103.00	4,884.46	9.12	139.72	168.324	-233.41	-421.64	2,624.71	2,495.21	129.50	20.268	
2,400.00	2,315.80	9,103.00	4,884.46	9.34	139.72	168.324	-233.41	-421.64	2,578.40	2,448.72	129.69	19.882	
2,450.00	2,362.89	9,103.00	4,884.46	9.56	139.72	168.324	-233.41	-421.64	2,532.24	2,402.37	129.87	19.498	
2,500.00	2,409.98	9,103.00	4,884.46	9.78	139.72	168.324	-233.41	-421.64	2,486.22	2,356.16	130.05	19.117	
2,550.00	2,457.07	9,103.00	4,884.46	10.00	139.72	168.324	-233.41	-421.64	2,440.36	2,310.12	130.24	18.737	
2,600.00	2,504.16	9,103.00	4,884.46	10.22	139.72	168.324	-233.41	-421.64	2,394.66	2,264.24	130.42	18.361	
2,650.00	2,551.25	9,103.00	4,884.46	10.44	139.72	168.324	-233.41	-421.64	2,349.14	2,218.53	130.61	17.986	
2,700.00	2,598.34	9,103.00	4,884.46	10.67	139.72	168.324	-233.41	-421.64	2,303.81	2,173.02	130.79	17.614	
2,750.00	2,645.42	9,103.00	4,884.46	10.89	139.72	168.324	-233.41	-421.64	2,258.67	2,127.69	130.98	17.245	
2,800.00	2,692.51	9,103.00	4,884.46	11.11	139.72	168.324	-233.41	-421.64	2,213.75	2,082.58	131.16	16.878	
2,850.00	2,739.60	9,103.00	4,884.46	11.33	139.72	168.324	-233.41	-421.64	2,169.04	2,037.69	131.35	16.514	
2,900.00	2,786.69	9,103.00	4,884.46	11.55	139.72	168.324	-233.41	-421.64	2,124.57	1,993.04	131.53	16.152	
2,950.00	2,833.78	9,103.00	4,884.46	11.77	139.72	168.324	-233.41	-421.64	2,080.35	1,948.63	131.72	15.794	
3,000.00	2,880.87	9,103.00	4,884.46	12.00	139.72	168.324	-233.41	-421.64	2,036.40	1,904.50	131.90	15.438	
3,050.00	2,927.96	9,103.00	4,884.46	12.22	139.72	168.324	-233.41	-421.64	1,992.73	1,860.64	132.09	15.086	
3,100.00	2,975.05	9,103.00	4,884.46	12.44	139.72	168.324	-233.41	-421.64	1,949.37	1,817.10	132.28	14.737	
3,150.00	3,022.14	9,103.00	4,884.46	12.66	139.72	168.324	-233.41	-421.64	1,906.34	1,773.88	132.46	14.392	
3,200.00	3,069.23	9,103.00	4,884.46	12.89	139.72	168.324	-233.41	-421.64	1,863.65	1,731.00	132.65	14.050	
3,250.00	3,116.32	9,096.78	4,884.78	13.11	139.53	168.007	-233.73	-427.85	1,821.32	1,688.33	132.99	13.695	
3,300.00	3,163.41	9,083.67	4,885.44	13.33	139.12	167.334	-234.42	-440.92	1,779.31	1,645.80	133.51	13.328	
3,350.00	3,210.50	9,070.56	4,886.10	13.55	138.71	166.653	-235.10	-453.99	1,737.62	1,603.61	134.01	12.967	
3,400.00	3,257.59	9,057.46	4,886.76	13.78	138.30	165.965	-235.79	-467.07	1,696.28	1,561.79	134.49	12.612	
3,450.00	3,304.68	9,042.63	4,887.51	14.00	137.83	165.178	-236.56	-481.86	1,655.31	1,520.31	135.00	12.261	
3,500.00	3,351.76	9,025.02	4,888.35	14.22	137.28	164.230	-237.45	-499.42	1,614.72	1,479.17	135.54	11.913	
3,550.00	3,398.85	9,007.94	4,889.09	14.44	136.75	163.298	-238.28	-516.46	1,574.52	1,438.47	136.05	11.573	
3,600.00	3,445.94	8,991.37	4,889.76	14.67	136.23	162.381	-239.04	-533.01	1,534.76	1,398.24	136.52	11.242	
3,650.00	3,493.03	8,975.27	4,890.36	14.89	135.73	161.479	-239.76	-549.07	1,495.49	1,358.53	136.96	10.919	
3,700.00	3,540.12	8,959.64	4,890.89	15.11	135.24	160.593	-240.42	-564.68	1,456.73	1,319.37	137.36	10.605	
3,750.00	3,587.21	8,944.59	4,891.35	15.34	134.77	159.731	-241.03	-579.71	1,418.55	1,280.82	137.73	10.299	
3,800.00	3,634.30	8,930.39	4,891.74	15.56	134.32	158.910	-241.58	-593.90	1,380.99	1,242.93	138.07	10.002	
3,850.00	3,681.39	8,916.54	4,892.09	15.78	133.89	158.101	-242.09	-607.74	1,344.13	1,205.75	138.37	9.714	
3,900.00	3,728.48	8,903.02	4,892.39	16.01	133.47	157.305	-242.57	-621.24	1,308.01	1,169.35	138.66	9.433	
3,950.00	3,775.57	8,889.82	4,892.66	16.23	133.05	156.522	-243.01	-634.43	1,272.71	1,133.79	138.92	9.162	
4,000.00	3,822.66	8,876.94	4,892.89	16.45	132.65	155.751	-243.42	-647.31	1,238.31	1,099.15	139.16	8.899	
4,050.00	3,869.75	8,864.36	4,893.08	16.67	132.25	154.994	-243.80	-659.88	1,204.88	1,065.51	139.37	8.645	
4,100.00	3,916.84	8,851.97	4,893.24	16.90	131.87	154.244	-244.15	-672.26	1,172.51	1,032.94	139.57	8.401	
4,150.00	3,963.93	8,839.44	4,893.37	17.12	131.47	153.482	-244.49	-684.78	1,141.30	1,001.56	139.74	8.167	
4,200.00	4,011.02	8,827.29	4,893.46	17.34	131.09	152.737	-244.79	-696.94	1,111.34	971.44	139.90	7.944	
4,250.00	4,058.10	8,815.49	4,893.51	17.57	130.72	152.011	-245.06	-708.73	1,082.74	942.71	140.03	7.732	
4,300.00	4,105.19	8,804.02	4,893.53	17.79	130.36	151.303	-245.31	-720.19	1,055.62	915.47	140.15	7.532	
4,350.00	4,152.28	8,792.89	4,893.51	18.01	130.01	150.612	-245.53	-731.32	1,030.10	889.85	140.26	7.344	
4,400.00	4,199.37	8,782.07	4,893.48	18.24	129.67	149.938	-245.72	-742.15	1,006.31	865.97	140.35	7.170	
4,450.00	4,246.46	8,771.54	4,893.41	18.46	129.34	149.280	-245.90	-752.67	984.38	843.96	140.42	7.010	
4,500.00	4,293.55	8,761.31	4,893.32	18.68	129.02	148.639	-246.05	-762.90	964.43	823.95	140.49	6.865	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 4262-MWD+IGRF												Offset Well Error:	0.00 usft
Reference				Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,550.00	4,340.64	8,751.04	4,893.21	18.91	128.70	147.994	-246.19	-773.17	946.61	806.07	140.54	6.736	
4,600.00	4,387.73	8,740.96	4,893.07	19.13	128.38	147.360	-246.32	-783.24	931.02	790.45	140.58	6.623	
4,650.00	4,434.91	8,731.58	4,892.91	19.35	128.08	150.429	-246.43	-792.63	917.73	776.84	140.89	6.514	
4,700.00	4,482.67	8,725.45	4,892.80	19.57	127.89	159.816	-246.49	-798.75	906.44	765.03	141.41	6.410	
4,750.00	4,530.89	8,722.95	4,892.75	19.77	127.81	172.442	-246.52	-801.25	897.26	755.41	141.85	6.325	
4,800.00	4,579.34	8,723.95	4,892.77	19.95	127.84	-172.515	-246.51	-800.26	890.33	748.03	142.31	6.256	
4,850.00	4,627.79	8,728.28	4,892.85	20.12	127.98	-157.128	-246.46	-795.92	885.74	742.90	142.83	6.201	
4,900.00	4,676.00	8,735.81	4,892.99	20.28	128.22	-143.436	-246.38	-788.39	883.48	740.00	143.48	6.158	
4,924.26	4,699.23	8,740.57	4,893.06	20.34	128.37	-137.684	-246.32	-783.64	883.22	739.38	143.84	6.140 CC	
4,950.00	4,723.73	8,746.37	4,893.14	20.42	128.55	-132.217	-246.25	-777.83	883.51	739.26	144.25	6.125 ES	
5,000.00	4,770.75	8,759.00	4,893.30	20.54	128.95	-123.275	-246.08	-765.21	885.71	740.58	145.13	6.103	
5,050.00	4,816.83	8,775.46	4,893.44	20.66	129.46	-115.937	-245.83	-748.75	889.91	743.77	146.14	6.090	
5,100.00	4,861.74	8,793.63	4,893.52	20.76	130.03	-109.825	-245.51	-730.58	895.91	748.73	147.18	6.087 SF	
5,150.00	4,905.28	8,814.17	4,893.51	20.86	130.68	-104.531	-245.09	-710.05	903.47	755.23	148.24	6.095	
5,200.00	4,947.22	8,836.92	4,893.39	20.94	131.39	-99.824	-244.55	-687.30	912.32	763.07	149.25	6.113	
5,250.00	4,987.37	8,861.89	4,893.11	21.01	132.18	-95.550	-243.87	-662.35	922.19	772.01	150.18	6.141	
5,300.00	5,025.51	8,889.19	4,892.67	21.07	133.03	-91.614	-243.03	-635.07	932.77	781.79	150.98	6.178	
5,350.00	5,061.48	8,918.40	4,892.04	21.13	133.95	-87.985	-242.03	-605.87	943.78	792.16	151.61	6.225	
5,400.00	5,095.10	8,948.00	4,891.25	21.18	134.88	-84.699	-240.90	-576.31	954.93	802.88	152.05	6.280	
5,450.00	5,126.19	8,982.12	4,890.11	21.21	135.94	-81.575	-239.46	-542.24	965.95	813.60	152.35	6.340	
5,500.00	5,154.62	9,016.30	4,884.74	21.25	137.01	-78.784	-237.88	-508.13	976.59	824.13	152.46	6.406	
5,550.00	5,180.35	9,052.22	4,887.03	21.27	138.13	-76.633	-236.06	-472.29	986.69	834.10	152.59	6.466	
5,600.00	5,205.35	9,094.14	4,884.91	21.30	139.44	-75.359	-233.87	-430.48	997.13	844.03	153.10	6.513	
5,650.00	5,230.35	9,103.00	4,884.46	21.33	139.72	-75.092	-233.41	-421.64	1,008.75	855.44	153.31	6.580	
5,700.00	5,255.35	9,103.00	4,884.46	21.36	139.72	-75.092	-233.41	-421.64	1,022.64	869.19	153.45	6.665	
5,750.00	5,280.20	9,103.00	4,884.46	21.40	139.72	-74.604	-233.41	-421.64	1,038.70	885.49	153.21	6.779	
5,800.00	5,302.17	9,103.00	4,884.46	21.44	139.72	-72.825	-233.41	-421.64	1,056.08	904.19	151.89	6.953	
5,850.00	5,320.15	9,103.00	4,884.46	21.48	139.72	-70.963	-233.41	-421.64	1,074.32	923.97	150.36	7.145	
5,900.00	5,333.99	9,103.00	4,884.46	21.52	139.72	-69.042	-233.41	-421.64	1,093.25	944.63	148.62	7.356	
5,950.00	5,343.59	9,103.00	4,884.46	21.56	139.72	-67.086	-233.41	-421.64	1,112.68	965.98	146.70	7.585	
6,000.00	5,348.88	9,103.00	4,884.46	21.60	139.72	-65.118	-233.41	-421.64	1,132.45	987.82	144.63	7.830	
6,050.00	5,350.00	9,103.00	4,884.46	21.64	139.72	-63.715	-233.41	-421.64	1,152.47	1,009.35	143.12	8.053	
6,100.00	5,350.00	9,103.00	4,884.46	21.69	139.72	-63.715	-233.41	-421.64	1,173.84	1,030.56	143.28	8.193	
6,150.00	5,350.00	9,103.00	4,884.46	21.77	139.72	-63.715	-233.41	-421.64	1,196.92	1,053.46	143.47	8.343	
6,200.00	5,350.00	9,103.00	4,884.46	21.87	139.72	-63.715	-233.41	-421.64	1,221.62	1,077.97	143.65	8.504	
6,250.00	5,350.00	9,103.00	4,884.46	21.99	139.72	-63.715	-233.41	-421.64	1,247.83	1,103.96	143.86	8.674	
6,300.00	5,350.00	9,103.00	4,884.46	22.14	139.72	-63.715	-233.41	-421.64	1,275.46	1,131.38	144.08	8.853	
6,350.00	5,350.00	9,103.00	4,884.46	22.32	139.72	-63.715	-233.41	-421.64	1,304.42	1,160.11	144.31	9.039	
6,400.00	5,350.00	9,103.00	4,884.46	22.51	139.72	-63.715	-233.41	-421.64	1,334.63	1,190.08	144.55	9.233	
6,450.00	5,350.00	9,103.00	4,884.46	22.74	139.72	-63.715	-233.41	-421.64	1,366.00	1,221.19	144.81	9.433	
6,500.00	5,350.00	9,103.00	4,884.46	22.98	139.72	-63.715	-233.41	-421.64	1,398.45	1,253.39	145.07	9.640	
6,550.00	5,350.00	9,103.00	4,884.46	23.24	139.72	-63.715	-233.41	-421.64	1,431.92	1,286.57	145.35	9.852	
6,600.00	5,350.00	9,103.00	4,884.46	23.52	139.72	-63.715	-233.41	-421.64	1,466.33	1,320.70	145.63	10.069	
6,650.00	5,350.00	9,103.00	4,884.46	23.81	139.72	-63.715	-233.41	-421.64	1,501.61	1,355.68	145.93	10.290	
6,700.00	5,350.00	9,103.00	4,884.46	24.11	139.72	-63.715	-233.41	-421.64	1,537.71	1,391.49	146.23	10.516	
6,750.00	5,350.00	9,103.00	4,884.46	24.43	139.72	-63.715	-233.41	-421.64	1,574.57	1,428.03	146.54	10.745	
6,800.00	5,350.00	9,103.00	4,884.46	24.75	139.72	-63.715	-233.41	-421.64	1,612.14	1,465.28	146.86	10.978	
6,850.00	5,350.00	9,103.00	4,884.46	25.09	139.72	-63.715	-233.41	-421.64	1,650.37	1,503.18	147.19	11.213	
6,900.00	5,350.00	9,103.00	4,884.46	25.43	139.72	-63.715	-233.41	-421.64	1,689.21	1,541.69	147.52	11.451	
6,950.00	5,350.00	9,103.00	4,884.46	25.79	139.72	-63.715	-233.41	-421.64	1,728.63	1,580.76	147.87	11.690	
7,000.00	5,350.00	9,103.00	4,884.46	26.15	139.72	-63.715	-233.41	-421.64	1,768.58	1,620.37	148.21	11.933	
7,050.00	5,350.00	9,103.00	4,884.46	26.52	139.72	-63.715	-233.41	-421.64	1,809.03	1,660.46	148.57	12.176	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	
Survey Program: 4262-MWD+IGRF													Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.00	5,350.00	9,103.00	4,884.46	26.89	139.72	-63.715	-233.41	-421.64	1,849.95	1,701.02	148.93	12.421		
7,150.00	5,350.00	9,103.00	4,884.46	27.28	139.72	-63.715	-233.41	-421.64	1,891.31	1,742.00	149.31	12.667		
7,200.00	5,350.00	9,103.00	4,884.46	27.67	139.72	-63.715	-233.41	-421.64	1,933.07	1,783.40	149.68	12.915		
7,250.00	5,350.00	9,103.00	4,884.46	28.07	139.72	-63.715	-233.41	-421.64	1,975.22	1,825.16	150.06	13.163		
7,300.00	5,350.00	9,103.00	4,884.46	28.47	139.72	-63.715	-233.41	-421.64	2,017.72	1,867.28	150.44	13.412		
7,350.00	5,350.00	9,103.00	4,884.46	28.88	139.72	-63.715	-233.41	-421.64	2,060.57	1,909.73	150.83	13.661		
7,400.00	5,350.00	9,103.00	4,884.46	29.29	139.72	-63.715	-233.41	-421.64	2,103.72	1,952.50	151.22	13.911		
7,450.00	5,350.00	9,103.00	4,884.46	29.71	139.72	-63.715	-233.41	-421.64	2,147.18	1,995.55	151.62	14.161		
7,500.00	5,350.00	9,103.00	4,884.46	30.13	139.72	-63.715	-233.41	-421.64	2,190.91	2,038.89	152.03	14.412		
7,550.00	5,350.00	9,103.00	4,884.46	30.56	139.72	-63.715	-233.41	-421.64	2,234.91	2,082.47	152.43	14.661		
7,600.00	5,350.00	9,103.00	4,884.46	30.99	139.72	-63.715	-233.41	-421.64	2,279.15	2,126.31	152.84	14.912		
7,650.00	5,350.00	9,103.00	4,884.46	31.43	139.72	-63.715	-233.41	-421.64	2,323.63	2,170.37	153.26	15.161		
7,700.00	5,350.00	9,103.00	4,884.46	31.87	139.72	-63.715	-233.41	-421.64	2,368.33	2,214.65	153.67	15.411		
7,750.00	5,350.00	9,103.00	4,884.46	32.31	139.72	-63.715	-233.41	-421.64	2,413.23	2,259.14	154.10	15.660		
7,800.00	5,350.00	9,103.00	4,884.46	32.76	139.72	-63.715	-233.41	-421.64	2,458.34	2,303.82	154.52	15.909		
7,850.00	5,350.00	9,103.00	4,884.46	33.21	139.72	-63.715	-233.41	-421.64	2,503.63	2,348.68	154.95	16.158		
7,900.00	5,350.00	9,103.00	4,884.46	33.66	139.72	-63.715	-233.41	-421.64	2,549.09	2,393.71	155.38	16.406		
7,950.00	5,350.00	9,103.00	4,884.46	34.12	139.72	-63.715	-233.41	-421.64	2,594.72	2,438.91	155.81	16.653		
8,000.00	5,350.00	9,103.00	4,884.46	34.58	139.72	-63.715	-233.41	-421.64	2,640.51	2,484.27	156.25	16.900		
8,050.00	5,350.00	9,103.00	4,884.46	35.05	139.72	-63.715	-233.41	-421.64	2,686.45	2,529.77	156.69	17.145		
8,100.00	5,350.00	9,103.00	4,884.46	35.51	139.72	-63.715	-233.41	-421.64	2,732.54	2,575.41	157.13	17.391		
8,150.00	5,350.00	9,103.00	4,884.46	35.98	139.72	-63.715	-233.41	-421.64	2,778.75	2,621.18	157.57	17.635		
8,200.00	5,350.00	9,103.00	4,884.46	36.46	139.72	-63.715	-233.41	-421.64	2,825.10	2,667.09	158.02	17.879		
8,250.00	5,350.00	9,103.00	4,884.46	36.93	139.72	-63.715	-233.41	-421.64	2,871.57	2,713.11	158.46	18.121		
8,300.00	5,350.00	9,103.00	4,884.46	37.41	139.72	-63.715	-233.41	-421.64	2,918.16	2,759.24	158.91	18.363		
8,350.00	5,350.00	9,103.00	4,884.46	37.89	139.72	-63.715	-233.41	-421.64	2,964.85	2,805.49	159.37	18.604		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 432-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	11.00	0.00	0.00	-46.286	397.43	-415.68	575.21				
50.00	50.00	39.00	50.00	0.05	0.48	-46.286	397.43	-415.68	575.10	574.56	0.54	1,070.259	
100.00	100.00	89.00	100.00	0.14	1.10	-46.286	397.43	-415.68	575.10	573.85	1.25	461.211	
150.00	150.00	139.00	150.00	0.32	1.73	-46.286	397.43	-415.68	575.10	573.05	2.05	281.066	
200.00	200.00	189.00	200.00	0.50	2.35	-46.286	397.43	-415.68	575.10	572.26	2.85	202.120	
250.00	250.00	239.00	250.00	0.68	2.97	-46.286	397.43	-415.68	575.10	571.46	3.64	157.797	
300.00	300.00	289.00	300.00	0.86	3.59	-46.286	397.43	-415.68	575.10	570.66	4.44	129.418 CC	
350.00	350.00	339.00	350.00	1.03	4.21	97.059	397.43	-415.68	575.15	569.92	5.24	109.788	
400.00	399.98	388.98	399.98	1.21	4.83	97.185	397.43	-415.68	575.32	569.28	6.03	95.382	
450.00	449.93	432.00	443.00	1.38	5.36	97.359	397.43	-415.68	575.63	568.90	6.74	85.444	
500.00	499.84	488.84	499.84	1.55	6.68	97.687	397.43	-415.68	575.99	567.77	8.22	70.058	
550.00	549.68	538.68	549.68	1.73	7.83	98.061	397.43	-415.68	576.53	566.98	9.55	60.372	
600.00	599.45	588.45	599.45	1.90	8.98	98.517	397.43	-415.68	577.23	566.35	10.88	53.075	
650.00	649.13	638.13	649.13	2.08	10.13	99.051	397.43	-415.68	578.10	565.89	12.20	47.373	
700.00	698.70	687.70	698.70	2.26	11.27	99.662	397.43	-415.68	579.17	565.64	13.53	42.814	
750.00	748.15	737.15	748.15	2.44	12.42	100.348	397.43	-415.68	580.47	565.61	14.85	39.081 ES	
800.00	797.47	786.47	797.47	2.62	13.56	101.106	397.43	-415.68	582.02	565.85	16.17	35.987	
850.00	846.63	835.63	846.63	2.80	14.69	101.933	397.43	-415.68	583.87	566.38	17.49	33.379	
900.00	895.62	884.62	895.62	2.99	15.83	102.826	397.43	-415.68	586.05	567.24	18.81	31.161	
950.00	944.44	933.49	944.44	3.18	16.92	103.780	397.43	-415.68	588.60	568.52	20.08	29.310	
1,000.00	993.06	982.11	993.06	3.37	17.95	104.793	397.43	-415.68	591.56	570.26	21.29	27.783	
1,050.00	1,041.46	1,030.52	1,041.46	3.56	18.97	105.858	397.43	-415.68	594.97	572.47	22.50	26.446	
1,100.00	1,089.64	1,078.70	1,089.64	3.76	19.99	106.972	397.43	-415.68	598.87	575.18	23.69	25.275	
1,150.00	1,137.58	1,126.64	1,137.58	3.96	21.01	108.130	397.43	-415.68	603.32	578.44	24.89	24.244	
1,200.00	1,185.27	1,174.32	1,185.27	4.16	22.01	109.325	397.43	-415.68	608.36	582.29	26.06	23.340	
1,250.00	1,232.68	1,221.74	1,232.68	4.36	23.02	110.552	397.43	-415.68	614.03	586.79	27.23	22.546	
1,300.00	1,279.83	1,268.89	1,279.83	4.57	24.02	111.845	397.43	-415.68	620.35	591.96	28.39	21.848	
1,350.00	1,326.92	1,315.98	1,326.92	4.78	25.01	113.201	397.43	-415.68	627.13	597.57	29.56	21.215	
1,400.00	1,374.01	1,363.07	1,374.01	4.99	26.01	114.530	397.43	-415.68	634.28	603.55	30.72	20.645	
1,450.00	1,421.10	1,410.16	1,421.10	5.20	27.00	115.832	397.43	-415.68	641.79	609.90	31.88	20.129	
1,500.00	1,468.19	1,457.27	1,468.19	5.41	28.00	117.105	397.43	-415.68	649.64	616.60	33.04	19.660	
1,550.00	1,515.28	1,504.36	1,515.28	5.63	29.00	118.350	397.43	-415.68	657.84	623.63	34.20	19.234	
1,600.00	1,562.37	1,551.45	1,562.37	5.84	30.00	119.567	397.43	-415.68	666.35	631.00	35.36	18.847	
1,650.00	1,609.46	1,598.54	1,609.46	6.06	31.00	120.755	397.43	-415.68	675.18	638.67	36.51	18.494	
1,700.00	1,656.55	1,645.63	1,656.55	6.27	32.00	121.914	397.43	-415.68	684.31	646.65	37.66	18.172	
1,750.00	1,703.64	1,692.72	1,703.64	6.49	33.00	123.045	397.43	-415.68	693.72	654.92	38.80	17.878	
1,800.00	1,750.73	1,739.81	1,750.73	6.71	34.00	124.147	397.43	-415.68	703.41	663.46	39.95	17.609	
1,850.00	1,797.82	1,786.90	1,797.82	6.93	35.00	125.222	397.43	-415.68	713.37	672.28	41.09	17.362	
1,900.00	1,844.91	1,833.99	1,844.91	7.14	36.00	126.269	397.43	-415.68	723.57	681.35	42.23	17.136	
1,950.00	1,892.00	1,881.08	1,892.00	7.36	37.00	127.288	397.43	-415.68	734.02	690.66	43.36	16.928	
2,000.00	1,939.08	1,928.00	1,939.08	7.58	37.83	128.110	397.43	-415.68	744.75	700.42	44.33	16.798	
2,050.00	1,986.17	1,975.28	1,986.17	7.80	39.00	129.247	397.43	-415.68	755.62	709.99	45.63	16.560	
2,100.00	2,033.26	2,022.37	2,033.26	8.02	40.00	130.187	397.43	-415.68	766.74	719.98	46.76	16.397	
2,150.00	2,080.35	2,069.46	2,080.35	8.24	41.00	131.102	397.43	-415.68	778.06	730.17	47.89	16.247	
2,200.00	2,127.44	2,116.55	2,127.44	8.46	42.01	131.992	397.43	-415.68	789.58	740.56	49.02	16.108	
2,250.00	2,174.53	2,163.64	2,174.53	8.68	43.01	132.858	397.43	-415.68	801.29	751.14	50.14	15.980	
2,300.00	2,221.62	2,210.73	2,221.62	8.90	44.01	133.700	397.43	-415.68	813.18	761.91	51.27	15.861	
2,350.00	2,268.71	2,257.82	2,268.71	9.12	45.01	134.519	397.43	-415.68	825.23	772.84	52.39	15.751	
2,400.00	2,315.80	2,304.91	2,315.80	9.34	46.01	135.316	397.43	-415.68	837.45	783.94	53.52	15.649	
2,450.00	2,362.89	2,351.99	2,362.89	9.56	47.01	136.091	397.43	-415.68	849.83	795.20	54.64	15.554	
2,500.00	2,409.98	2,399.08	2,409.98	9.78	48.01	136.845	397.43	-415.68	862.36	806.60	55.76	15.467	
2,550.00	2,457.07	2,446.20	2,457.07	10.00	49.04	137.578	397.43	-415.68	875.03	818.13	56.90	15.378	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 432-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,493.29	2,504.16	10.22	50.08	138.292	397.43	-415.68	887.84	829.78	58.06	15.291	
2,650.00	2,551.25	2,540.38	2,551.25	10.44	51.13	138.985	397.43	-415.68	900.78	841.56	59.22	15.210	
2,700.00	2,598.34	2,587.47	2,598.34	10.67	52.17	139.661	397.43	-415.68	913.85	853.46	60.38	15.134	
2,750.00	2,645.42	2,634.56	2,645.42	10.89	53.22	140.317	397.43	-415.68	927.04	865.49	61.54	15.063	
2,800.00	2,692.51	2,681.65	2,692.51	11.11	54.26	140.957	397.43	-415.68	940.34	877.64	62.70	14.997	
2,850.00	2,739.60	2,728.73	2,739.60	11.33	55.31	141.579	397.43	-415.68	953.75	889.89	63.86	14.935	
2,900.00	2,786.69	2,775.82	2,786.69	11.55	56.35	142.184	397.43	-415.68	967.27	902.26	65.02	14.877	
2,950.00	2,833.78	2,822.91	2,833.78	11.77	57.40	142.774	397.43	-415.68	980.90	914.72	66.17	14.823	
3,000.00	2,880.87	2,870.00	2,880.87	12.00	58.44	143.348	397.43	-415.68	994.62	927.28	67.33	14.772	
3,050.00	2,927.96	2,917.09	2,927.96	12.22	59.49	143.907	397.43	-415.68	1,008.43	939.94	68.49	14.724	
3,100.00	2,975.05	2,962.00	2,975.05	12.44	60.26	144.311	397.43	-415.68	1,022.40	953.01	69.40	14.733	
3,150.00	3,022.14	3,011.30	3,022.14	12.66	61.63	144.981	397.43	-415.68	1,036.32	965.46	70.85	14.626	
3,200.00	3,069.23	3,058.39	3,069.23	12.89	62.72	145.498	397.43	-415.68	1,050.39	978.34	72.05	14.578	
3,250.00	3,116.32	3,105.48	3,116.32	13.11	63.81	146.001	397.43	-415.68	1,064.54	991.29	73.25	14.533	
3,300.00	3,163.41	3,152.57	3,163.41	13.33	64.90	146.492	397.43	-415.68	1,078.77	1,004.32	74.45	14.490	
3,350.00	3,210.50	3,199.66	3,210.50	13.55	65.99	146.970	397.43	-415.68	1,093.07	1,017.42	75.65	14.450	
3,400.00	3,257.59	3,246.74	3,257.59	13.78	67.08	147.436	397.43	-415.68	1,107.44	1,030.60	76.85	14.411	
3,450.00	3,304.68	3,293.83	3,304.68	14.00	68.17	147.891	397.43	-415.68	1,121.88	1,043.84	78.04	14.375	
3,500.00	3,351.76	3,340.92	3,351.76	14.22	69.26	148.334	397.43	-415.68	1,136.39	1,057.14	79.24	14.341	
3,550.00	3,398.85	3,388.01	3,398.85	14.44	70.34	148.767	397.43	-415.68	1,150.95	1,070.51	80.44	14.309	
3,600.00	3,445.94	3,435.10	3,445.94	14.67	71.43	149.189	397.43	-415.68	1,165.58	1,083.94	81.64	14.278	
3,650.00	3,493.03	3,482.23	3,493.03	14.89	72.40	149.601	397.43	-415.68	1,180.27	1,097.55	82.72	14.268	
3,700.00	3,540.12	3,529.32	3,540.12	15.11	73.32	150.003	397.43	-415.68	1,195.01	1,111.26	83.75	14.269	
3,750.00	3,587.21	3,576.41	3,587.21	15.34	74.23	150.395	397.43	-415.68	1,209.80	1,125.02	84.78	14.270	
3,800.00	3,634.30	3,623.50	3,634.30	15.56	75.15	150.779	397.43	-415.68	1,224.65	1,138.84	85.81	14.272	
3,850.00	3,681.39	3,670.59	3,681.39	15.78	76.06	151.153	397.43	-415.68	1,239.55	1,152.71	86.84	14.274	
3,900.00	3,728.48	3,717.68	3,728.48	16.01	76.97	151.519	397.43	-415.68	1,254.49	1,166.62	87.87	14.276	
3,950.00	3,775.57	3,764.77	3,775.57	16.23	77.89	151.876	397.43	-415.68	1,269.49	1,180.58	88.90	14.279	
4,000.00	3,822.66	3,811.86	3,822.66	16.45	78.80	152.225	397.43	-415.68	1,284.52	1,194.59	89.93	14.283	
4,050.00	3,869.75	3,858.95	3,869.75	16.67	79.71	152.566	397.43	-415.68	1,299.61	1,208.64	90.97	14.287	
4,100.00	3,916.84	3,906.03	3,916.84	16.90	80.63	152.900	397.43	-415.68	1,314.73	1,222.73	92.00	14.291	
4,150.00	3,963.93	3,953.12	3,963.93	17.12	81.54	153.226	397.43	-415.68	1,329.89	1,236.86	93.03	14.295	
4,200.00	4,011.02	4,000.26	4,011.02	17.34	82.43	153.545	397.43	-415.68	1,345.09	1,251.06	94.04	14.304	
4,250.00	4,058.10	4,047.35	4,058.10	17.57	83.26	153.857	397.43	-415.68	1,360.34	1,265.34	94.99	14.321	
4,300.00	4,105.19	4,094.43	4,105.19	17.79	84.10	154.162	397.43	-415.68	1,375.61	1,279.67	95.95	14.337	
4,350.00	4,152.28	4,141.52	4,152.28	18.01	84.93	154.460	397.43	-415.68	1,390.93	1,294.02	96.90	14.354	
4,400.00	4,199.37	4,188.61	4,199.37	18.24	85.76	154.753	397.43	-415.68	1,406.27	1,308.41	97.86	14.370	
4,450.00	4,246.46	4,235.70	4,246.46	18.46	86.59	155.039	397.43	-415.68	1,421.65	1,322.84	98.82	14.387	
4,500.00	4,293.55	4,282.79	4,293.55	18.68	87.43	155.319	397.43	-415.68	1,437.06	1,337.29	99.77	14.403	
4,550.00	4,340.64	4,329.88	4,340.64	18.91	88.26	155.593	397.43	-415.68	1,452.51	1,351.78	100.73	14.420	
4,600.00	4,387.73	4,376.97	4,387.73	19.13	89.09	155.862	397.43	-415.68	1,467.98	1,366.29	101.69	14.436	
4,650.00	4,434.91	4,415.00	4,434.91	19.35	89.77	156.104	397.43	-415.68	1,483.38	1,380.63	102.75	14.436	
4,700.00	4,482.67	4,471.91	4,482.67	19.57	91.13	157.793	397.43	-415.68	1,497.75	1,392.93	104.81	14.290	
4,750.00	4,530.89	4,520.13	4,530.89	19.77	92.28	-172.665	397.43	-415.68	1,510.91	1,404.21	106.71	14.159	
4,800.00	4,579.34	4,568.59	4,579.34	19.95	93.44	-156.352	397.43	-415.68	1,522.80	1,414.21	108.59	14.024	
4,850.00	4,627.79	4,617.03	4,627.79	20.12	94.60	-140.328	397.43	-415.68	1,533.35	1,422.94	110.42	13.887	
4,900.00	4,676.00	4,665.24	4,676.00	20.28	95.76	-126.606	397.43	-415.68	1,542.57	1,430.41	112.16	13.753	
4,950.00	4,723.73	4,712.97	4,723.73	20.42	96.90	-115.930	397.43	-415.68	1,550.47	1,436.67	113.80	13.624	
5,000.00	4,770.75	4,750.00	4,770.75	20.54	97.79	-107.884	397.43	-415.68	1,557.11	1,442.01	115.10	13.528	
5,050.00	4,816.83	4,806.08	4,816.83	20.66	99.29	-102.249	397.43	-415.68	1,562.46	1,445.53	116.92	13.363	
5,100.00	4,861.74	4,851.00	4,861.74	20.76	100.49	-98.085	397.43	-415.68	1,566.68	1,448.31	118.37	13.235	
5,150.00	4,905.28	4,894.53	4,905.28	20.86	101.65	-95.100	397.43	-415.68	1,569.86	1,450.12	119.74	13.111	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 432-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	4,947.22	4,936.47	4,947.22	20.94	102.77	-92.993	397.43	-415.68	1,572.10	1,451.08	121.02	12.991	
5,250.00	4,987.37	4,976.62	4,987.37	21.01	103.84	-91.547	397.43	-415.68	1,573.53	1,451.29	122.23	12.873	
5,300.00	5,025.51	5,014.77	5,025.51	21.07	104.86	-90.600	397.43	-415.68	1,574.29	1,450.90	123.39	12.759	
5,350.00	5,061.48	5,050.00	5,060.69	21.13	105.80	-90.012	397.43	-415.68	1,574.52	1,450.05	124.47	12.650	
5,383.48	5,084.26	5,065.00	5,075.69	21.16	106.18	-89.582	397.43	-415.68	1,574.49	1,449.57	124.93	12.603	
5,400.00	5,095.10	5,065.00	5,075.69	21.18	106.18	-89.210	397.43	-415.68	1,574.52	1,449.57	124.95	12.602	
5,450.00	5,126.19	5,065.00	5,075.69	21.21	106.18	-88.192	397.43	-415.68	1,574.87	1,449.88	124.99	12.600 SF	
5,500.00	5,154.62	5,065.00	5,075.69	21.25	106.18	-87.312	397.43	-415.68	1,575.64	1,450.62	125.03	12.603	
5,550.00	5,180.35	5,065.00	5,075.69	21.27	106.18	-86.752	397.43	-415.68	1,576.89	1,451.81	125.07	12.608	
5,600.00	5,205.35	5,065.00	5,075.69	21.30	106.18	-86.752	397.43	-415.68	1,579.41	1,454.22	125.19	12.616	
5,650.00	5,230.35	5,065.00	5,075.69	21.33	106.18	-86.752	397.43	-415.68	1,583.51	1,458.19	125.32	12.636	
5,700.00	5,255.35	5,065.00	5,075.69	21.36	106.18	-86.752	397.43	-415.68	1,589.18	1,463.72	125.45	12.667	
5,750.00	5,280.20	5,065.00	5,075.69	21.40	106.18	-86.530	397.43	-415.68	1,596.38	1,470.82	125.56	12.714	
5,800.00	5,302.17	5,065.00	5,075.69	21.44	106.18	-85.667	397.43	-415.68	1,604.90	1,479.39	125.52	12.786	
5,850.00	5,320.15	5,065.00	5,075.69	21.48	106.18	-84.681	397.43	-415.68	1,614.61	1,489.20	125.41	12.874	
5,900.00	5,333.99	5,065.00	5,075.69	21.52	106.18	-83.582	397.43	-415.68	1,625.40	1,500.17	125.23	12.979	
5,950.00	5,343.59	5,065.00	5,075.69	21.56	106.18	-82.379	397.43	-415.68	1,637.18	1,512.20	124.97	13.100	
6,000.00	5,348.88	5,065.00	5,075.69	21.60	106.18	-81.085	397.43	-415.68	1,649.83	1,525.20	124.63	13.238	
6,050.00	5,350.00	5,065.00	5,075.69	21.64	106.18	-80.110	397.43	-415.68	1,663.27	1,538.88	124.39	13.372	
6,100.00	5,350.00	5,065.00	5,075.69	21.69	106.18	-80.110	397.43	-415.68	1,677.91	1,553.35	124.56	13.471	
6,150.00	5,350.00	5,065.00	5,075.69	21.77	106.18	-80.110	397.43	-415.68	1,693.91	1,569.15	124.75	13.578	
6,200.00	5,350.00	5,065.00	5,075.69	21.87	106.18	-80.110	397.43	-415.68	1,711.21	1,586.27	124.95	13.695	
6,250.00	5,350.00	5,065.00	5,075.69	21.99	106.18	-80.110	397.43	-415.68	1,729.79	1,604.63	125.17	13.820	
6,300.00	5,350.00	5,065.00	5,075.69	22.14	106.18	-80.110	397.43	-415.68	1,749.61	1,624.22	125.39	13.953	
6,350.00	5,350.00	5,065.00	5,075.69	22.32	106.18	-80.110	397.43	-415.68	1,770.61	1,644.97	125.64	14.093	
6,400.00	5,350.00	5,065.00	5,075.69	22.51	106.18	-80.110	397.43	-415.68	1,792.76	1,666.88	125.88	14.242	
6,450.00	5,350.00	5,065.00	5,075.69	22.74	106.18	-80.110	397.43	-415.68	1,816.02	1,689.87	126.15	14.396	
6,500.00	5,350.00	5,065.00	5,075.69	22.98	106.18	-80.110	397.43	-415.68	1,840.34	1,713.92	126.42	14.557	
6,550.00	5,350.00	5,065.00	5,075.69	23.24	106.18	-80.110	397.43	-415.68	1,865.69	1,738.98	126.71	14.724	
6,600.00	5,350.00	5,065.00	5,075.69	23.52	106.18	-80.110	397.43	-415.68	1,892.01	1,765.01	127.00	14.898	
6,650.00	5,350.00	5,065.00	5,075.69	23.81	106.18	-80.110	397.43	-415.68	1,919.28	1,791.97	127.31	15.076	
6,700.00	5,350.00	5,065.00	5,075.69	24.11	106.18	-80.110	397.43	-415.68	1,947.46	1,819.83	127.62	15.260	
6,750.00	5,350.00	5,065.00	5,075.69	24.43	106.18	-80.110	397.43	-415.68	1,976.49	1,848.54	127.95	15.447	
6,800.00	5,350.00	5,065.00	5,075.69	24.75	106.18	-80.110	397.43	-415.68	2,006.35	1,878.07	128.28	15.641	
6,850.00	5,350.00	5,065.00	5,075.69	25.09	106.18	-80.110	397.43	-415.68	2,037.00	1,908.38	128.62	15.837	
6,900.00	5,350.00	5,065.00	5,075.69	25.43	106.18	-80.110	397.43	-415.68	2,068.41	1,939.44	128.97	16.038	
6,950.00	5,350.00	5,065.00	5,075.69	25.79	106.18	-80.110	397.43	-415.68	2,100.54	1,971.21	129.33	16.242	
7,000.00	5,350.00	5,065.00	5,075.69	26.15	106.18	-80.110	397.43	-415.68	2,133.35	2,003.66	129.69	16.450	
7,050.00	5,350.00	5,065.00	5,075.69	26.52	106.18	-80.110	397.43	-415.68	2,166.82	2,036.76	130.06	16.660	
7,100.00	5,350.00	5,065.00	5,075.69	26.89	106.18	-80.110	397.43	-415.68	2,200.92	2,070.48	130.44	16.873	
7,150.00	5,350.00	5,065.00	5,075.69	27.28	106.18	-80.110	397.43	-415.68	2,235.62	2,104.79	130.82	17.089	
7,200.00	5,350.00	5,065.00	5,075.69	27.67	106.18	-80.110	397.43	-415.68	2,270.88	2,139.67	131.21	17.307	
7,250.00	5,350.00	5,065.00	5,075.69	28.07	106.18	-80.110	397.43	-415.68	2,306.70	2,175.09	131.61	17.527	
7,300.00	5,350.00	5,065.00	5,075.69	28.47	106.18	-80.110	397.43	-415.68	2,343.03	2,211.02	132.01	17.749	
7,350.00	5,350.00	5,065.00	5,075.69	28.88	106.18	-80.110	397.43	-415.68	2,379.86	2,247.44	132.42	17.972	
7,400.00	5,350.00	5,065.00	5,075.69	29.29	106.18	-80.110	397.43	-415.68	2,417.16	2,284.33	132.83	18.198	
7,450.00	5,350.00	5,065.00	5,075.69	29.71	106.18	-80.110	397.43	-415.68	2,454.91	2,321.66	133.25	18.424	
7,500.00	5,350.00	5,065.00	5,075.69	30.13	106.18	-80.110	397.43	-415.68	2,493.09	2,359.43	133.67	18.651	
7,550.00	5,350.00	5,065.00	5,075.69	30.56	106.18	-80.110	397.43	-415.68	2,531.69	2,397.59	134.10	18.880	
7,600.00	5,350.00	5,065.00	5,075.69	30.99	106.18	-80.110	397.43	-415.68	2,570.68	2,436.15	134.52	19.109	
7,650.00	5,350.00	5,065.00	5,075.69	31.43	106.18	-80.110	397.43	-415.68	2,610.04	2,475.08	134.96	19.339	
7,700.00	5,350.00	5,065.00	5,075.69	31.87	106.18	-80.110	397.43	-415.68	2,649.76	2,514.36	135.40	19.570	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 432-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	5,065.00	5,075.69	32.31	106.18	-80.110	397.43	-415.68	2,689.83	2,553.99	135.84	19.801	
7,800.00	5,350.00	5,065.00	5,075.69	32.76	106.18	-80.110	397.43	-415.68	2,730.22	2,593.93	136.29	20.033	
7,850.00	5,350.00	5,065.00	5,075.69	33.21	106.18	-80.110	397.43	-415.68	2,770.93	2,634.19	136.74	20.264	
7,900.00	5,350.00	5,065.00	5,075.69	33.66	106.18	-80.110	397.43	-415.68	2,811.93	2,674.74	137.19	20.497	
7,950.00	5,350.00	5,065.00	5,075.69	34.12	106.18	-80.110	397.43	-415.68	2,853.23	2,715.58	137.65	20.729	
8,000.00	5,350.00	5,065.00	5,075.69	34.58	106.18	-80.110	397.43	-415.68	2,894.80	2,756.69	138.11	20.961	
8,050.00	5,350.00	5,065.00	5,075.69	35.05	106.18	-80.110	397.43	-415.68	2,936.63	2,798.06	138.57	21.193	
8,100.00	5,350.00	5,065.00	5,075.69	35.51	106.18	-80.110	397.43	-415.68	2,978.71	2,839.68	139.03	21.425	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	16.00	0.00	0.00	-156.024	-922.80	-410.39	1,010.07				
50.00	50.00	34.00	50.00	0.05	0.29	-156.024	-922.80	-410.39	1,009.94	1,009.59	0.35	2,904.014	
100.00	100.00	84.00	100.00	0.14	0.73	-156.024	-922.80	-410.39	1,009.94	1,009.07	0.87	1,161.186	
150.00	150.00	134.00	150.00	0.32	1.16	-156.024	-922.80	-410.39	1,009.94	1,008.46	1.48	681.774	
200.00	200.00	184.00	200.00	0.50	1.59	-156.024	-922.80	-410.39	1,009.94	1,007.85	2.09	482.547	
250.00	250.00	234.00	250.00	0.68	2.02	-156.024	-922.80	-410.39	1,009.94	1,007.24	2.70	373.426	
300.00	300.00	284.00	300.00	0.86	2.46	-156.024	-922.80	-410.39	1,009.94	1,006.62	3.32	304.555	
350.00	350.00	334.00	350.00	1.03	2.89	-12.729	-922.80	-410.39	1,009.51	1,005.59	3.93	257.042	
400.00	399.98	383.98	399.98	1.21	3.32	-12.751	-922.80	-410.39	1,008.24	1,003.69	4.55	221.687	
450.00	449.93	433.93	449.93	1.38	3.96	-12.788	-922.80	-410.39	1,006.11	1,000.73	5.38	187.095	
500.00	499.84	483.84	499.84	1.55	5.03	-12.840	-922.80	-410.39	1,003.13	996.50	6.63	151.249	
550.00	549.68	533.68	549.68	1.73	6.10	-12.907	-922.80	-410.39	999.31	991.42	7.89	126.728	
600.00	599.45	583.45	599.45	1.90	7.18	-12.990	-922.80	-410.39	994.64	985.51	9.13	108.937	
650.00	649.13	633.13	649.13	2.08	8.24	-13.089	-922.80	-410.39	989.12	978.75	10.37	95.391	
700.00	698.70	682.70	698.70	2.26	9.31	-13.204	-922.80	-410.39	982.76	971.17	11.60	84.743	
750.00	748.15	732.15	748.15	2.44	10.38	-13.337	-922.80	-410.39	975.57	962.75	12.81	76.128	
800.00	797.47	781.47	797.47	2.62	11.44	-13.487	-922.80	-410.39	967.53	953.51	14.02	69.010	
850.00	846.63	830.63	846.63	2.80	12.49	-13.656	-922.80	-410.39	958.67	943.45	15.21	63.012	
900.00	895.62	909.00	925.00	2.99	14.18	-13.936	-922.80	-410.39	949.43	932.43	17.00	55.843	
950.00	944.44	928.44	944.44	3.18	14.74	-14.056	-922.80	-410.39	938.46	920.77	17.69	53.052	
1,000.00	993.06	977.06	993.06	3.37	16.14	-14.288	-922.80	-410.39	927.12	907.95	19.17	48.358	
1,050.00	1,041.46	1,025.46	1,041.46	3.56	17.53	-14.544	-922.80	-410.39	914.97	894.34	20.63	44.344	
1,100.00	1,089.64	1,073.64	1,089.64	3.76	18.92	-14.825	-922.80	-410.39	902.02	879.95	22.07	40.864	
1,150.00	1,137.58	1,121.58	1,137.58	3.96	20.30	-15.133	-922.80	-410.39	888.26	864.78	23.49	37.817	
1,200.00	1,185.27	1,169.27	1,185.27	4.16	21.67	-15.471	-922.80	-410.39	873.72	848.84	24.88	35.119	
1,250.00	1,232.68	1,216.69	1,232.68	4.36	23.03	-15.840	-922.80	-410.39	858.38	832.14	26.24	32.709	
1,300.00	1,279.83	1,263.84	1,279.83	4.57	24.39	-16.208	-922.80	-410.39	842.32	814.70	27.62	30.494	
1,350.00	1,326.92	1,310.92	1,326.92	4.78	25.74	-16.532	-922.80	-410.39	826.12	797.05	29.08	28.413	
1,400.00	1,374.01	1,358.01	1,374.01	4.99	27.10	-16.869	-922.80	-410.39	809.94	779.41	30.53	26.528	
1,450.00	1,421.10	1,405.20	1,421.10	5.20	28.45	-17.219	-922.80	-410.39	793.79	761.81	31.99	24.816	
1,500.00	1,468.19	1,452.29	1,468.19	5.41	29.54	-17.584	-922.80	-410.39	777.67	744.47	33.20	23.425	
1,550.00	1,515.28	1,499.38	1,515.28	5.63	30.63	-17.964	-922.80	-410.39	761.58	727.16	34.41	22.130	
1,600.00	1,562.37	1,546.47	1,562.37	5.84	31.72	-18.360	-922.80	-410.39	745.52	709.89	35.63	20.924	
1,650.00	1,609.46	1,593.56	1,609.46	6.06	32.81	-18.774	-922.80	-410.39	729.49	692.64	36.85	19.797	
1,700.00	1,656.55	1,640.65	1,656.55	6.27	33.90	-19.205	-922.80	-410.39	713.50	675.42	38.07	18.741	
1,750.00	1,703.64	1,687.74	1,703.64	6.49	34.99	-19.657	-922.80	-410.39	697.54	658.25	39.30	17.751	
1,800.00	1,750.73	1,734.83	1,750.73	6.71	36.08	-20.129	-922.80	-410.39	681.63	641.11	40.52	16.821	
1,850.00	1,797.82	1,781.92	1,797.82	6.93	37.17	-20.623	-922.80	-410.39	665.76	624.01	41.75	15.946	
1,900.00	1,844.91	1,829.01	1,844.91	7.14	38.26	-21.141	-922.80	-410.39	649.94	606.96	42.98	15.120	
1,950.00	1,892.00	1,876.10	1,892.00	7.36	39.35	-21.685	-922.80	-410.39	634.17	589.95	44.22	14.341	
2,000.00	1,939.08	1,923.29	1,939.08	7.58	40.33	-22.256	-922.80	-410.39	618.46	573.10	45.36	13.635	
2,050.00	1,986.17	1,970.38	1,986.17	7.80	41.19	-22.856	-922.80	-410.39	602.80	556.42	46.38	12.998	
2,100.00	2,033.26	2,017.47	2,033.26	8.02	42.05	-23.487	-922.80	-410.39	587.21	539.81	47.40	12.388	
2,150.00	2,080.35	2,064.56	2,080.35	8.24	42.91	-24.152	-922.80	-410.39	571.69	523.26	48.43	11.804	
2,200.00	2,127.44	2,111.65	2,127.44	8.46	43.76	-24.853	-922.80	-410.39	556.24	506.78	49.46	11.245	
2,250.00	2,174.53	2,158.73	2,174.53	8.68	44.62	-25.594	-922.80	-410.39	540.87	490.37	50.50	10.710	
2,300.00	2,221.62	2,205.82	2,221.62	8.90	45.48	-26.377	-922.80	-410.39	525.60	474.05	51.54	10.197	
2,350.00	2,268.71	2,252.91	2,268.71	9.12	46.33	-27.205	-922.80	-410.39	510.41	457.82	52.59	9.705	
2,400.00	2,315.80	2,300.00	2,315.80	9.34	47.19	-28.083	-922.80	-410.39	495.34	441.69	53.65	9.234	
2,450.00	2,362.89	2,347.09	2,362.89	9.56	48.05	-29.014	-922.80	-410.39	480.38	425.67	54.71	8.781	
2,500.00	2,409.98	2,400.00	2,415.79	9.78	49.01	-30.130	-922.80	-410.39	465.58	409.70	55.88	8.332	
2,550.00	2,457.07	2,441.28	2,457.07	10.00	49.81	-31.056	-922.80	-410.39	450.84	393.95	56.89	7.924	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,488.37	2,504.16	10.22	50.72	-32.176	-922.80	-410.39	436.30	378.27	58.03	7.518	
2,650.00	2,551.25	2,535.46	2,551.25	10.44	51.64	-33.371	-922.80	-410.39	421.92	362.75	59.18	7.130	
2,700.00	2,598.34	2,582.54	2,598.34	10.67	52.55	-34.646	-922.80	-410.39	407.74	347.40	60.34	6.758	
2,750.00	2,645.42	2,629.63	2,645.42	10.89	53.46	-36.010	-922.80	-410.39	393.75	332.25	61.51	6.402	
2,800.00	2,692.51	2,676.72	2,692.51	11.11	54.38	-37.469	-922.80	-410.39	380.00	317.31	62.69	6.062	
2,850.00	2,739.60	2,723.81	2,739.60	11.33	55.29	-39.031	-922.80	-410.39	366.50	302.62	63.89	5.737	
2,900.00	2,786.69	2,770.90	2,786.69	11.55	56.20	-40.707	-922.80	-410.39	353.29	288.19	65.10	5.427	
2,950.00	2,833.78	2,817.99	2,833.78	11.77	57.11	-42.504	-922.80	-410.39	340.39	274.06	66.33	5.132	
3,000.00	2,880.87	2,865.08	2,880.87	12.00	58.03	-44.434	-922.80	-410.39	327.85	260.28	67.57	4.852	
3,050.00	2,927.96	2,912.18	2,927.96	12.22	58.96	-46.505	-922.80	-410.39	315.70	246.85	68.85	4.585	
3,100.00	2,975.05	2,959.27	2,975.05	12.44	59.96	-48.730	-922.80	-410.39	304.00	233.78	70.22	4.329	
3,150.00	3,022.14	3,006.36	3,022.14	12.66	60.96	-51.117	-922.80	-410.39	292.80	221.19	71.61	4.089	
3,200.00	3,069.23	3,053.45	3,069.23	12.89	61.96	-53.675	-922.80	-410.39	282.16	209.13	73.02	3.864	
3,250.00	3,116.32	3,100.54	3,116.32	13.11	62.96	-56.414	-922.80	-410.39	272.14	197.69	74.45	3.655	
3,300.00	3,163.41	3,147.63	3,163.41	13.33	63.97	-59.338	-922.80	-410.39	262.81	186.92	75.89	3.463	
3,350.00	3,210.50	3,194.72	3,210.50	13.55	64.97	-62.450	-922.80	-410.39	254.25	176.91	77.34	3.288	
3,400.00	3,257.59	3,241.81	3,257.59	13.78	65.97	-65.749	-922.80	-410.39	246.54	167.75	78.79	3.129	
3,450.00	3,304.68	3,288.90	3,304.68	14.00	66.97	-69.228	-922.80	-410.39	239.77	159.53	80.24	2.988	
3,500.00	3,351.76	3,335.99	3,351.76	14.22	67.97	-72.875	-922.80	-410.39	234.01	152.33	81.68	2.865	
3,550.00	3,398.85	3,383.08	3,398.85	14.44	68.97	-76.670	-922.80	-410.39	229.34	146.25	83.09	2.760	
3,600.00	3,445.94	3,430.18	3,445.94	14.67	70.05	-80.588	-922.80	-410.39	225.83	141.29	84.54	2.671	
3,650.00	3,493.03	3,477.27	3,493.03	14.89	71.18	-84.597	-922.80	-410.39	223.53	137.52	86.01	2.599	
3,700.00	3,540.12	3,524.36	3,540.12	15.11	72.31	-88.660	-922.80	-410.39	222.48	135.06	87.42	2.545	
3,716.43	3,555.59	3,539.83	3,555.59	15.19	72.69	-90.000	-922.80	-410.39	222.41	134.54	87.87	2.531 CC	
3,750.00	3,587.21	3,571.45	3,587.21	15.34	73.45	-92.736	-922.80	-410.39	222.69	133.92	88.77	2.509 ES	
3,800.00	3,634.30	3,618.54	3,634.30	15.56	74.58	-96.785	-922.80	-410.39	224.18	134.11	90.07	2.489	
3,850.00	3,681.39	3,665.63	3,681.39	15.78	75.71	-100.767	-922.80	-410.39	226.90	135.60	91.30	2.485 SF	
3,900.00	3,728.48	3,712.72	3,728.48	16.01	76.84	-104.646	-922.80	-410.39	230.81	138.34	92.48	2.496	
3,950.00	3,775.57	3,759.81	3,775.57	16.23	77.97	-108.393	-922.80	-410.39	235.87	142.26	93.60	2.520	
4,000.00	3,822.66	3,806.90	3,822.66	16.45	79.10	-111.985	-922.80	-410.39	241.98	147.29	94.69	2.556	
4,050.00	3,869.75	3,853.99	3,869.75	16.67	80.23	-115.403	-922.80	-410.39	249.08	153.34	95.74	2.602	
4,100.00	3,916.84	3,901.07	3,916.84	16.90	81.37	-118.638	-922.80	-410.39	257.09	160.32	96.78	2.657	
4,150.00	3,963.93	3,948.20	3,963.93	17.12	82.54	-121.686	-922.80	-410.39	265.92	168.09	97.83	2.718	
4,200.00	4,011.02	3,995.29	4,011.02	17.34	83.71	-124.545	-922.80	-410.39	275.50	176.61	98.89	2.786	
4,250.00	4,058.10	4,042.38	4,058.10	17.57	84.89	-127.222	-922.80	-410.39	285.74	185.80	99.94	2.859	
4,300.00	4,105.19	4,089.47	4,105.19	17.79	86.07	-129.720	-922.80	-410.39	296.58	195.58	101.00	2.937	
4,350.00	4,152.28	4,136.56	4,152.28	18.01	87.25	-132.051	-922.80	-410.39	307.96	205.90	102.06	3.017	
4,400.00	4,199.37	4,183.65	4,199.37	18.24	88.43	-134.221	-922.80	-410.39	319.82	216.69	103.13	3.101	
4,450.00	4,246.46	4,230.74	4,246.46	18.46	89.61	-136.243	-922.80	-410.39	332.11	227.89	104.21	3.187	
4,500.00	4,293.55	4,277.83	4,293.55	18.68	90.78	-138.126	-922.80	-410.39	344.77	239.47	105.30	3.274	
4,550.00	4,340.64	4,324.92	4,340.64	18.91	91.96	-139.881	-922.80	-410.39	357.78	251.38	106.41	3.362	
4,600.00	4,387.73	4,372.01	4,387.73	19.13	93.14	-141.517	-922.80	-410.39	371.10	263.58	107.52	3.451	
4,650.00	4,434.91	4,419.19	4,434.91	19.35	94.32	-138.814	-922.80	-410.39	384.31	274.87	109.44	3.512	
4,700.00	4,482.67	4,467.01	4,482.67	19.57	95.57	-129.481	-922.80	-410.39	394.90	282.92	111.97	3.527	
4,750.00	4,530.89	4,515.23	4,530.89	19.77	96.87	-117.369	-922.80	-410.39	402.40	288.26	114.14	3.526	
4,800.00	4,579.34	4,563.68	4,579.34	19.95	98.18	-103.343	-922.80	-410.39	406.82	290.95	115.87	3.511	
4,850.00	4,627.79	4,612.13	4,627.79	20.12	99.49	-89.512	-922.80	-410.39	408.21	291.03	117.18	3.484	
4,900.00	4,676.00	4,660.34	4,676.00	20.28	100.79	-77.943	-922.80	-410.39	406.63	288.55	118.08	3.444	
4,950.00	4,723.73	4,708.07	4,723.73	20.42	102.08	-69.440	-922.80	-410.39	402.18	283.58	118.60	3.391	
5,000.00	4,770.75	4,755.09	4,770.75	20.54	103.35	-63.785	-922.80	-410.39	395.00	276.18	118.82	3.324	
5,050.00	4,816.83	4,801.17	4,816.83	20.66	104.60	-60.447	-922.80	-410.39	385.28	266.44	118.85	3.242	
5,100.00	4,861.74	4,820.00	4,835.62	20.76	105.11	-57.329	-922.80	-410.39	374.18	256.38	117.79	3.177	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	4,820.00	4,835.62	20.86	105.11	-54.092	-922.80	-410.39	365.94	250.19	115.75	3.161	
5,200.00	4,947.22	4,820.00	4,835.62	20.94	105.11	-51.484	-922.80	-410.39	361.30	247.92	113.38	3.187	
5,236.59	4,976.79	4,820.00	4,835.62	20.99	105.11	-49.855	-922.80	-410.39	360.28	248.85	111.43	3.233	
5,250.00	4,987.37	4,820.00	4,835.62	21.01	105.11	-49.304	-922.80	-410.39	360.42	249.74	110.68	3.256	
5,300.00	5,025.51	4,820.00	4,835.62	21.07	105.11	-47.415	-922.80	-410.39	363.33	255.66	107.67	3.375	
5,350.00	5,061.48	4,820.00	4,835.62	21.13	105.11	-45.723	-922.80	-410.39	369.92	265.57	104.36	3.545	
5,400.00	5,095.10	4,820.00	4,835.62	21.18	105.11	-44.167	-922.80	-410.39	379.99	279.21	100.77	3.771	
5,450.00	5,126.19	4,820.00	4,835.62	21.21	105.11	-42.708	-922.80	-410.39	393.20	296.26	96.94	4.056	
5,500.00	5,154.62	4,820.00	4,835.62	21.25	105.11	-41.321	-922.80	-410.39	409.20	316.30	92.90	4.405	
5,550.00	5,180.35	4,820.00	4,835.62	21.27	105.11	-40.367	-922.80	-410.39	427.71	337.76	89.95	4.755	
5,600.00	5,205.35	4,820.00	4,835.62	21.30	105.11	-40.367	-922.80	-410.39	450.34	360.27	90.07	5.000	
5,650.00	5,230.35	4,820.00	4,835.62	21.33	105.11	-40.367	-922.80	-410.39	477.14	386.94	90.20	5.290	
5,700.00	5,255.35	4,820.00	4,835.62	21.36	105.11	-40.367	-922.80	-410.39	507.47	417.14	90.33	5.618	
5,750.00	5,280.20	4,820.00	4,835.62	21.40	105.11	-39.526	-922.80	-410.39	540.63	452.17	88.47	6.111	
5,800.00	5,302.17	4,820.00	4,835.62	21.44	105.11	-36.692	-922.80	-410.39	574.47	493.13	81.34	7.063	
5,850.00	5,320.15	4,820.00	4,835.62	21.48	105.11	-34.063	-922.80	-410.39	608.09	533.99	74.10	8.206	
5,900.00	5,333.99	4,820.00	4,835.62	21.52	105.11	-31.653	-922.80	-410.39	641.30	574.15	67.15	9.550	
5,950.00	5,343.59	4,820.00	4,835.62	21.56	105.11	-29.465	-922.80	-410.39	673.92	612.95	60.97	11.054	
6,000.00	5,348.88	4,820.00	4,835.62	21.60	105.11	-27.492	-922.80	-410.39	705.81	649.71	56.10	12.582	
6,050.00	5,350.00	4,820.00	4,835.62	21.64	105.11	-26.205	-922.80	-410.39	736.95	683.19	53.76	13.708	
6,100.00	5,350.00	4,820.00	4,835.62	21.69	105.11	-26.205	-922.80	-410.39	769.35	715.42	53.93	14.265	
6,150.00	5,350.00	4,820.00	4,835.62	21.77	105.11	-26.205	-922.80	-410.39	803.56	749.44	54.12	14.848	
6,200.00	5,350.00	4,820.00	4,835.62	21.87	105.11	-26.205	-922.80	-410.39	839.36	785.05	54.31	15.455	
6,250.00	5,350.00	4,820.00	4,835.62	21.99	105.11	-26.205	-922.80	-410.39	876.54	822.03	54.51	16.079	
6,300.00	5,350.00	4,820.00	4,835.62	22.14	105.11	-26.205	-922.80	-410.39	914.95	860.23	54.72	16.721	
6,350.00	5,350.00	4,820.00	4,835.62	22.32	105.11	-26.205	-922.80	-410.39	954.43	899.49	54.94	17.372	
6,400.00	5,350.00	4,820.00	4,835.62	22.51	105.11	-26.205	-922.80	-410.39	994.86	939.70	55.16	18.036	
6,450.00	5,350.00	4,820.00	4,835.62	22.74	105.11	-26.205	-922.80	-410.39	1,036.12	980.73	55.39	18.705	
6,500.00	5,350.00	4,820.00	4,835.62	22.98	105.11	-26.205	-922.80	-410.39	1,078.12	1,022.50	55.62	19.382	
6,550.00	5,350.00	4,820.00	4,835.62	23.24	105.11	-26.205	-922.80	-410.39	1,120.78	1,064.92	55.87	20.061	
6,600.00	5,350.00	4,820.00	4,835.62	23.52	105.11	-26.205	-922.80	-410.39	1,164.03	1,107.92	56.11	20.745	
6,650.00	5,350.00	4,820.00	4,835.62	23.81	105.11	-26.205	-922.80	-410.39	1,207.79	1,151.43	56.36	21.428	
6,700.00	5,350.00	4,820.00	4,835.62	24.11	105.11	-26.205	-922.80	-410.39	1,252.03	1,195.41	56.62	22.114	
6,750.00	5,350.00	4,820.00	4,835.62	24.43	105.11	-26.205	-922.80	-410.39	1,296.68	1,239.80	56.88	22.798	
6,800.00	5,350.00	4,820.00	4,835.62	24.75	105.11	-26.205	-922.80	-410.39	1,341.71	1,284.57	57.14	23.482	
6,850.00	5,350.00	4,820.00	4,835.62	25.09	105.11	-26.205	-922.80	-410.39	1,387.08	1,329.67	57.41	24.163	
6,900.00	5,350.00	4,820.00	4,835.62	25.43	105.11	-26.205	-922.80	-410.39	1,432.76	1,375.08	57.67	24.843	
6,950.00	5,350.00	4,820.00	4,835.62	25.79	105.11	-26.205	-922.80	-410.39	1,478.72	1,420.77	57.95	25.518	
7,000.00	5,350.00	4,820.00	4,835.62	26.15	105.11	-26.205	-922.80	-410.39	1,524.93	1,466.71	58.22	26.193	
7,050.00	5,350.00	4,820.00	4,835.62	26.52	105.11	-26.205	-922.80	-410.39	1,571.37	1,512.87	58.50	26.862	
7,100.00	5,350.00	4,820.00	4,835.62	26.89	105.11	-26.205	-922.80	-410.39	1,618.03	1,559.25	58.78	27.529	
7,150.00	5,350.00	4,820.00	4,835.62	27.28	105.11	-26.205	-922.80	-410.39	1,664.88	1,605.82	59.06	28.190	
7,200.00	5,350.00	4,820.00	4,835.62	27.67	105.11	-26.205	-922.80	-410.39	1,711.91	1,652.56	59.34	28.848	
7,250.00	5,350.00	4,820.00	4,835.62	28.07	105.11	-26.205	-922.80	-410.39	1,759.10	1,699.47	59.63	29.500	
7,300.00	5,350.00	4,820.00	4,835.62	28.47	105.11	-26.205	-922.80	-410.39	1,806.44	1,746.53	59.92	30.150	
7,350.00	5,350.00	4,820.00	4,835.62	28.88	105.11	-26.205	-922.80	-410.39	1,853.93	1,793.72	60.21	30.793	
7,400.00	5,350.00	4,820.00	4,835.62	29.29	105.11	-26.205	-922.80	-410.39	1,901.54	1,841.04	60.50	31.432	
7,450.00	5,350.00	4,820.00	4,835.62	29.71	105.11	-26.205	-922.80	-410.39	1,949.27	1,888.48	60.79	32.066	
7,500.00	5,350.00	4,820.00	4,835.62	30.13	105.11	-26.205	-922.80	-410.39	1,997.11	1,936.03	61.08	32.695	
7,550.00	5,350.00	4,820.00	4,835.62	30.56	105.11	-26.205	-922.80	-410.39	2,045.06	1,983.68	61.38	33.319	
7,600.00	5,350.00	4,820.00	4,835.62	30.99	105.11	-26.205	-922.80	-410.39	2,093.10	2,031.43	61.67	33.938	
7,650.00	5,350.00	4,820.00	4,835.62	31.43	105.11	-26.205	-922.80	-410.39	2,141.23	2,079.26	61.97	34.551	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,700.00	5,350.00	4,820.00	4,835.62	31.87	105.11	-26.205	-922.80	-410.39	2,189.45	2,127.18	62.27	35.160	
7,750.00	5,350.00	4,820.00	4,835.62	32.31	105.11	-26.205	-922.80	-410.39	2,237.74	2,175.17	62.57	35.763	
7,800.00	5,350.00	4,820.00	4,835.62	32.76	105.11	-26.205	-922.80	-410.39	2,286.11	2,223.24	62.87	36.362	
7,850.00	5,350.00	4,820.00	4,835.62	33.21	105.11	-26.205	-922.80	-410.39	2,334.54	2,271.37	63.17	36.955	
7,900.00	5,350.00	4,820.00	4,835.62	33.66	105.11	-26.205	-922.80	-410.39	2,383.04	2,319.57	63.48	37.543	
7,950.00	5,350.00	4,820.00	4,835.62	34.12	105.11	-26.205	-922.80	-410.39	2,431.61	2,367.83	63.78	38.125	
8,000.00	5,350.00	4,820.00	4,835.62	34.58	105.11	-26.205	-922.80	-410.39	2,480.22	2,416.14	64.08	38.704	
8,050.00	5,350.00	4,820.00	4,835.62	35.05	105.11	-26.205	-922.80	-410.39	2,528.90	2,464.51	64.39	39.276	
8,100.00	5,350.00	4,820.00	4,835.62	35.51	105.11	-26.205	-922.80	-410.39	2,577.62	2,512.93	64.69	39.844	
8,150.00	5,350.00	4,820.00	4,835.62	35.98	105.11	-26.205	-922.80	-410.39	2,626.39	2,561.39	65.00	40.406	
8,200.00	5,350.00	4,820.00	4,835.62	36.46	105.11	-26.205	-922.80	-410.39	2,675.21	2,609.90	65.31	40.964	
8,250.00	5,350.00	4,820.00	4,835.62	36.93	105.11	-26.205	-922.80	-410.39	2,724.07	2,658.45	65.61	41.516	
8,300.00	5,350.00	4,820.00	4,835.62	37.41	105.11	-26.205	-922.80	-410.39	2,772.97	2,707.04	65.92	42.065	
8,350.00	5,350.00	4,820.00	4,835.62	37.89	105.11	-26.205	-922.80	-410.39	2,821.91	2,755.67	66.23	42.607	
8,400.00	5,350.00	4,820.00	4,835.62	38.37	105.11	-26.205	-922.80	-410.39	2,870.88	2,804.34	66.54	43.145	
8,450.00	5,350.00	4,820.00	4,835.62	38.86	105.11	-26.205	-922.80	-410.39	2,919.89	2,853.04	66.85	43.678	
8,500.00	5,350.00	4,820.00	4,835.62	39.34	105.11	-26.205	-922.80	-410.39	2,968.93	2,901.77	67.16	44.207	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 400-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	26.00	0.00	0.00	-172.032	-2,876.02	-402.57	2,904.17				
50.00	50.00	24.00	50.00	0.05	0.25	-172.032	-2,876.02	-402.57	2,904.06	2,903.76	0.30	9,646.793	
100.00	100.00	74.00	100.00	0.14	0.76	-172.032	-2,876.02	-402.57	2,904.06	2,903.15	0.91	3,206.076	
150.00	150.00	124.00	150.00	0.32	1.28	-172.032	-2,876.02	-402.57	2,904.06	2,902.46	1.60	1,814.837	
200.00	200.00	174.00	200.00	0.50	1.79	-172.032	-2,876.02	-402.57	2,904.06	2,901.76	2.29	1,265.631	
250.00	250.00	224.00	250.00	0.68	2.31	-172.032	-2,876.02	-402.57	2,904.06	2,901.07	2.99	971.605	
300.00	300.00	274.00	300.00	0.86	2.82	-172.032	-2,876.02	-402.57	2,904.06	2,900.37	3.68	788.438	
350.00	350.00	324.00	350.00	1.03	3.34	-28.737	-2,876.02	-402.57	2,903.68	2,899.30	4.38	662.874	
400.00	399.98	400.00	426.00	1.21	4.12	-28.769	-2,876.02	-402.57	2,902.64	2,897.29	5.35	542.110	
450.00	449.93	423.93	449.93	1.38	4.68	-28.800	-2,876.02	-402.57	2,900.62	2,894.52	6.09	475.930	
500.00	499.84	473.84	499.84	1.55	5.83	-28.855	-2,876.02	-402.57	2,897.94	2,890.51	7.43	390.228	
550.00	549.68	523.68	549.68	1.73	6.98	-28.926	-2,876.02	-402.57	2,894.50	2,885.75	8.76	330.550	
600.00	599.45	573.45	599.45	1.90	8.13	-29.012	-2,876.02	-402.57	2,890.31	2,880.23	10.08	286.754	
650.00	649.13	623.13	649.13	2.08	9.28	-29.115	-2,876.02	-402.57	2,885.35	2,873.95	11.40	253.172	
700.00	698.70	672.70	698.70	2.26	10.43	-29.234	-2,876.02	-402.57	2,879.64	2,866.94	12.70	226.666	
750.00	748.15	722.15	748.15	2.44	11.57	-29.370	-2,876.02	-402.57	2,873.18	2,859.18	14.00	205.174	
800.00	797.47	771.47	797.47	2.62	12.71	-29.522	-2,876.02	-402.57	2,865.97	2,850.68	15.29	187.428	
850.00	846.63	820.63	846.63	2.80	13.85	-29.692	-2,876.02	-402.57	2,858.02	2,841.45	16.57	172.496	
900.00	895.62	928.00	953.97	2.99	16.33	-30.002	-2,876.02	-402.57	2,849.92	2,830.77	19.15	148.839	
950.00	944.44	928.00	953.97	3.18	16.33	-30.105	-2,876.02	-402.57	2,839.91	2,820.61	19.30	147.165	
1,000.00	993.06	967.08	993.06	3.37	17.27	-30.305	-2,876.02	-402.57	2,829.73	2,809.38	20.36	139.009	
1,050.00	1,041.46	1,015.49	1,041.46	3.56	18.44	-30.545	-2,876.02	-402.57	2,818.85	2,797.23	21.62	130.353	
1,100.00	1,089.64	1,063.67	1,089.64	3.76	19.61	-30.805	-2,876.02	-402.57	2,807.25	2,784.37	22.88	122.705	
1,150.00	1,137.58	1,111.61	1,137.58	3.96	20.76	-31.083	-2,876.02	-402.57	2,794.94	2,770.82	24.11	115.906	
1,200.00	1,185.27	1,159.30	1,185.27	4.16	21.92	-31.381	-2,876.02	-402.57	2,781.92	2,756.59	25.33	109.817	
1,250.00	1,232.68	1,206.71	1,232.68	4.36	23.06	-31.699	-2,876.02	-402.57	2,768.21	2,741.68	26.53	104.330	
1,300.00	1,279.83	1,253.86	1,279.83	4.57	24.20	-31.980	-2,876.02	-402.57	2,753.86	2,726.11	27.75	99.247	
1,350.00	1,326.92	1,300.95	1,326.92	4.78	25.34	-32.163	-2,876.02	-402.57	2,739.38	2,710.36	29.02	94.406	
1,400.00	1,374.01	1,348.04	1,374.01	4.99	26.47	-32.348	-2,876.02	-402.57	2,724.93	2,694.64	30.29	89.964	
1,450.00	1,421.10	1,395.13	1,421.10	5.20	27.61	-32.535	-2,876.02	-402.57	2,710.50	2,678.94	31.56	85.875	
1,500.00	1,468.19	1,456.00	1,481.91	5.41	29.08	-32.780	-2,876.02	-402.57	2,696.14	2,662.98	33.16	81.310	
1,550.00	1,515.28	1,489.37	1,515.28	5.63	29.89	-32.915	-2,876.02	-402.57	2,681.74	2,647.62	34.12	78.596	
1,600.00	1,562.37	1,536.46	1,562.37	5.84	31.03	-33.108	-2,876.02	-402.57	2,667.40	2,632.00	35.40	75.346	
1,650.00	1,609.46	1,583.55	1,609.46	6.06	32.16	-33.303	-2,876.02	-402.57	2,653.09	2,616.40	36.69	72.321	
1,700.00	1,656.55	1,630.64	1,656.55	6.27	33.30	-33.500	-2,876.02	-402.57	2,638.81	2,600.84	37.97	69.497	
1,750.00	1,703.64	1,677.73	1,703.64	6.49	34.44	-33.699	-2,876.02	-402.57	2,624.56	2,585.30	39.26	66.857	
1,800.00	1,750.73	1,724.81	1,750.73	6.71	35.58	-33.900	-2,876.02	-402.57	2,610.34	2,569.79	40.54	64.382	
1,850.00	1,797.82	1,771.90	1,797.82	6.93	36.72	-34.103	-2,876.02	-402.57	2,596.15	2,554.31	41.83	62.058	
1,900.00	1,844.91	1,818.99	1,844.91	7.14	37.86	-34.309	-2,876.02	-402.57	2,581.99	2,538.87	43.12	59.872	
1,950.00	1,892.00	1,920.00	1,945.88	7.36	40.30	-34.756	-2,876.02	-402.57	2,568.43	2,522.75	45.68	56.229	
2,000.00	1,939.08	1,920.00	1,945.88	7.58	40.30	-34.756	-2,876.02	-402.57	2,553.78	2,507.91	45.87	55.673	
2,050.00	1,986.17	1,960.30	1,986.17	7.80	41.31	-34.938	-2,876.02	-402.57	2,539.71	2,492.66	47.05	53.982	
2,100.00	2,033.26	2,007.39	2,033.26	8.02	42.50	-35.152	-2,876.02	-402.57	2,525.68	2,477.29	48.39	52.194	
2,150.00	2,080.35	2,114.00	2,139.85	8.24	45.19	-35.646	-2,876.02	-402.57	2,512.40	2,461.21	51.19	49.079	
2,200.00	2,127.44	2,114.00	2,139.85	8.46	45.19	-35.646	-2,876.02	-402.57	2,497.76	2,446.38	51.39	48.609	
2,250.00	2,174.53	2,148.68	2,174.53	8.68	46.06	-35.809	-2,876.02	-402.57	2,483.81	2,431.38	52.43	47.375	
2,300.00	2,221.62	2,195.77	2,221.62	8.90	47.25	-36.032	-2,876.02	-402.57	2,469.92	2,416.15	53.78	45.928	
2,350.00	2,268.71	2,242.86	2,268.71	9.12	48.44	-36.259	-2,876.02	-402.57	2,456.07	2,400.95	55.13	44.552	
2,400.00	2,315.80	2,289.95	2,315.80	9.34	49.62	-36.487	-2,876.02	-402.57	2,442.26	2,385.78	56.48	43.241	
2,450.00	2,362.89	2,337.03	2,362.89	9.56	50.81	-36.718	-2,876.02	-402.57	2,428.49	2,370.65	57.83	41.991	
2,500.00	2,409.98	2,414.00	2,439.82	9.78	52.75	-37.101	-2,876.02	-402.57	2,414.93	2,355.01	59.92	40.301	
2,550.00	2,457.07	2,431.25	2,457.07	10.00	53.19	-37.188	-2,876.02	-402.57	2,401.05	2,340.51	60.54	39.658	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 400-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.00	2,504.16	2,478.34	2,504.16	10.22	54.38	-37.426	-2,876.02	-402.57	2,387.40	2,325.49	61.90	38.567	
2,650.00	2,551.25	2,525.43	2,551.25	10.44	55.56	-37.668	-2,876.02	-402.57	2,373.78	2,310.52	63.26	37.523	
2,700.00	2,598.34	2,572.52	2,598.34	10.67	56.75	-37.912	-2,876.02	-402.57	2,360.20	2,295.58	64.62	36.523	
2,750.00	2,645.42	2,619.61	2,645.42	10.89	57.94	-38.158	-2,876.02	-402.57	2,346.67	2,280.68	65.98	35.565	
2,800.00	2,692.51	2,666.69	2,692.51	11.11	59.13	-38.408	-2,876.02	-402.57	2,333.18	2,265.83	67.35	34.644	
2,850.00	2,739.60	2,713.78	2,739.60	11.33	60.32	-38.660	-2,876.02	-402.57	2,319.73	2,251.02	68.71	33.761	
2,900.00	2,786.69	2,760.87	2,786.69	11.55	61.51	-38.915	-2,876.02	-402.57	2,306.32	2,236.25	70.08	32.912	
2,950.00	2,833.78	2,807.96	2,833.78	11.77	62.69	-39.173	-2,876.02	-402.57	2,292.96	2,221.52	71.44	32.095	
3,000.00	2,880.87	2,855.05	2,880.87	12.00	63.88	-39.434	-2,876.02	-402.57	2,279.65	2,206.84	72.81	31.309	
3,050.00	2,927.96	2,902.14	2,927.96	12.22	65.07	-39.697	-2,876.02	-402.57	2,266.38	2,192.20	74.18	30.552	
3,100.00	2,975.05	2,949.23	2,975.05	12.44	66.26	-39.964	-2,876.02	-402.57	2,253.16	2,177.61	75.55	29.823	
3,150.00	3,022.14	3,010.00	3,035.75	12.66	67.79	-40.312	-2,876.02	-402.57	2,240.03	2,162.77	77.27	28.991	
3,200.00	3,069.23	3,043.48	3,069.23	12.89	68.60	-40.506	-2,876.02	-402.57	2,226.87	2,148.60	78.27	28.452	
3,250.00	3,116.32	3,090.57	3,116.32	13.11	69.74	-40.782	-2,876.02	-402.57	2,213.80	2,134.20	79.59	27.813	
3,300.00	3,163.41	3,137.66	3,163.41	13.33	70.88	-41.061	-2,876.02	-402.57	2,200.78	2,119.85	80.92	27.196	
3,350.00	3,210.50	3,184.75	3,210.50	13.55	72.02	-41.343	-2,876.02	-402.57	2,187.81	2,105.55	82.25	26.598	
3,400.00	3,257.59	3,231.83	3,257.59	13.78	73.16	-41.628	-2,876.02	-402.57	2,174.89	2,091.30	83.59	26.020	
3,450.00	3,304.68	3,278.92	3,304.68	14.00	74.30	-41.916	-2,876.02	-402.57	2,162.02	2,077.10	84.92	25.459	
3,500.00	3,351.76	3,326.01	3,351.76	14.22	75.44	-42.208	-2,876.02	-402.57	2,149.21	2,062.96	86.26	24.917	
3,550.00	3,398.85	3,407.00	3,432.71	14.44	77.40	-42.717	-2,876.02	-402.57	2,136.73	2,048.32	88.41	24.168	
3,600.00	3,445.94	3,420.24	3,445.94	14.67	77.70	-42.801	-2,876.02	-402.57	2,123.76	2,034.84	88.92	23.885	
3,650.00	3,493.03	3,467.33	3,493.03	14.89	78.79	-43.103	-2,876.02	-402.57	2,111.12	2,020.91	90.21	23.402	
3,700.00	3,540.12	3,514.42	3,540.12	15.11	79.88	-43.408	-2,876.02	-402.57	2,098.54	2,007.04	91.50	22.934	
3,750.00	3,587.21	3,561.51	3,587.21	15.34	80.97	-43.717	-2,876.02	-402.57	2,086.02	1,993.22	92.80	22.479	
3,800.00	3,634.30	3,608.59	3,634.30	15.56	82.06	-44.029	-2,876.02	-402.57	2,073.56	1,979.46	94.09	22.037	
3,850.00	3,681.39	3,655.68	3,681.39	15.78	83.15	-44.344	-2,876.02	-402.57	2,061.16	1,965.76	95.39	21.607	
3,900.00	3,728.48	3,702.77	3,728.48	16.01	84.24	-44.664	-2,876.02	-402.57	2,048.82	1,952.13	96.69	21.189	
3,950.00	3,775.57	3,749.86	3,775.57	16.23	85.33	-44.987	-2,876.02	-402.57	2,036.55	1,938.55	97.99	20.782	
4,000.00	3,822.66	3,796.95	3,822.66	16.45	86.42	-45.313	-2,876.02	-402.57	2,024.34	1,925.04	99.30	20.387	
4,050.00	3,869.75	3,844.04	3,869.75	16.67	87.51	-45.644	-2,876.02	-402.57	2,012.20	1,911.60	100.60	20.002	
4,100.00	3,916.84	3,907.00	3,932.67	16.90	88.96	-46.091	-2,876.02	-402.57	2,000.19	1,897.91	102.28	19.556	
4,150.00	3,963.93	3,938.26	3,963.93	17.12	89.69	-46.316	-2,876.02	-402.57	1,988.12	1,884.90	103.22	19.262	
4,200.00	4,011.02	3,985.35	4,011.02	17.34	90.78	-46.657	-2,876.02	-402.57	1,976.18	1,871.66	104.53	18.906	
4,250.00	4,058.10	4,032.44	4,058.10	17.57	91.87	-47.003	-2,876.02	-402.57	1,964.32	1,858.48	105.84	18.560	
4,300.00	4,105.19	4,079.53	4,105.19	17.79	92.96	-47.353	-2,876.02	-402.57	1,952.53	1,845.38	107.15	18.222	
4,350.00	4,152.28	4,126.62	4,152.28	18.01	94.05	-47.706	-2,876.02	-402.57	1,940.81	1,832.35	108.47	17.893	
4,400.00	4,199.37	4,173.71	4,199.37	18.24	95.14	-48.064	-2,876.02	-402.57	1,929.17	1,819.39	109.78	17.572	
4,450.00	4,246.46	4,220.80	4,246.46	18.46	96.23	-48.425	-2,876.02	-402.57	1,917.61	1,806.50	111.10	17.260	
4,500.00	4,293.55	4,267.88	4,293.55	18.68	97.32	-48.791	-2,876.02	-402.57	1,906.12	1,793.70	112.42	16.955	
4,550.00	4,340.64	4,314.97	4,340.64	18.91	98.41	-49.161	-2,876.02	-402.57	1,894.71	1,780.97	113.75	16.657	
4,600.00	4,387.73	4,362.06	4,387.73	19.13	99.50	-49.535	-2,876.02	-402.57	1,883.39	1,768.32	115.07	16.367	
4,650.00	4,434.91	4,409.28	4,434.91	19.35	100.60	-49.910	-2,876.02	-402.57	1,872.10	1,755.84	116.26	16.103	
4,700.00	4,482.67	4,457.04	4,482.67	19.57	101.75	-50.285	-2,876.02	-402.57	1,860.58	1,743.24	117.34	15.856	
4,750.00	4,530.89	4,505.26	4,530.89	19.77	102.92	-50.661	-2,876.02	-402.57	1,848.77	1,730.34	118.43	15.610	
4,800.00	4,579.34	4,553.72	4,579.34	19.95	104.09	-51.037	-2,876.02	-402.57	1,836.71	1,717.16	119.55	15.364	
4,850.00	4,627.79	4,602.17	4,627.79	20.12	105.26	-51.413	-2,876.02	-402.57	1,824.44	1,703.73	120.71	15.115	
4,900.00	4,676.00	4,650.37	4,676.00	20.28	106.43	-51.789	-2,876.02	-402.57	1,812.02	1,690.10	121.92	14.863	
4,950.00	4,723.73	4,698.10	4,723.73	20.42	107.58	-52.165	-2,876.02	-402.57	1,799.55	1,676.35	123.20	14.607	
5,000.00	4,770.75	4,745.12	4,770.75	20.54	108.72	-52.541	-2,876.02	-402.57	1,787.12	1,662.57	124.55	14.349	
5,050.00	4,816.83	4,791.20	4,816.83	20.66	109.83	-52.917	-2,876.02	-402.57	1,774.88	1,648.91	125.97	14.090	
5,100.00	4,861.74	4,838.00	4,861.74	20.76	110.97	-53.293	-2,876.02	-402.57	1,762.95	1,635.47	127.49	13.829	
5,150.00	4,905.28	4,870.00	4,895.59	20.86	111.77	-53.674	-2,876.02	-402.57	1,751.54	1,622.83	128.71	13.608	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 400-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.00	4,947.22	4,870.00	4,895.59	20.94	111.77	71.261	-2,876.02	-402.57	1,741.51	1,612.43	129.08	13.492		
5,250.00	4,987.37	4,870.00	4,895.59	21.01	111.77	74.137	-2,876.02	-402.57	1,733.26	1,603.83	129.43	13.392		
5,300.00	5,025.51	4,870.00	4,895.59	21.07	111.77	76.436	-2,876.02	-402.57	1,726.85	1,597.11	129.74	13.310		
5,350.00	5,061.48	4,870.00	4,895.59	21.13	111.77	78.253	-2,876.02	-402.57	1,722.34	1,592.32	130.02	13.247		
5,400.00	5,095.10	4,870.00	4,895.59	21.18	111.77	79.657	-2,876.02	-402.57	1,719.76	1,589.50	130.26	13.203		
5,440.80	5,120.67	4,870.00	4,895.59	21.21	111.77	80.531	-2,876.02	-402.57	1,719.11	1,588.68	130.43	13.180	CC	
5,450.00	5,126.19	4,870.00	4,895.59	21.21	111.77	80.697	-2,876.02	-402.57	1,719.14	1,588.67	130.47	13.177	ES	
5,500.00	5,154.62	4,870.00	4,895.59	21.25	111.77	81.412	-2,876.02	-402.57	1,720.48	1,589.84	130.64	13.169	SF	
5,550.00	5,180.35	4,870.00	4,895.59	21.27	111.77	81.739	-2,876.02	-402.57	1,723.75	1,592.97	130.78	13.180		
5,600.00	5,205.35	4,870.00	4,895.59	21.30	111.77	81.739	-2,876.02	-402.57	1,728.59	1,597.70	130.89	13.206		
5,650.00	5,230.35	4,870.00	4,895.59	21.33	111.77	81.739	-2,876.02	-402.57	1,734.86	1,603.83	131.02	13.241		
5,700.00	5,255.35	4,870.00	4,895.59	21.36	111.77	81.739	-2,876.02	-402.57	1,742.54	1,611.38	131.16	13.286		
5,750.00	5,280.20	4,870.00	4,895.59	21.40	111.77	81.467	-2,876.02	-402.57	1,751.58	1,620.36	131.22	13.348		
5,800.00	5,302.17	4,870.00	4,895.59	21.44	111.77	80.466	-2,876.02	-402.57	1,761.52	1,630.47	131.06	13.441		
5,850.00	5,320.15	4,870.00	4,895.59	21.48	111.77	79.399	-2,876.02	-402.57	1,772.12	1,641.31	130.81	13.547		
5,900.00	5,333.99	4,870.00	4,895.59	21.52	111.77	78.276	-2,876.02	-402.57	1,783.27	1,652.79	130.48	13.667		
5,950.00	5,343.59	4,870.00	4,895.59	21.56	111.77	77.109	-2,876.02	-402.57	1,794.89	1,664.81	130.07	13.799		
6,000.00	5,348.88	4,870.00	4,895.59	21.60	111.77	75.909	-2,876.02	-402.57	1,806.87	1,677.26	129.61	13.941		
6,050.00	5,350.00	4,870.00	4,895.59	21.64	111.77	75.035	-2,876.02	-402.57	1,819.18	1,689.87	129.31	14.068		
6,100.00	5,350.00	4,870.00	4,895.59	21.69	111.77	75.035	-2,876.02	-402.57	1,832.49	1,703.00	129.49	14.152		
6,150.00	5,350.00	4,870.00	4,895.59	21.77	111.77	75.035	-2,876.02	-402.57	1,847.06	1,717.38	129.68	14.243		
6,200.00	5,350.00	4,870.00	4,895.59	21.87	111.77	75.035	-2,876.02	-402.57	1,862.86	1,732.98	129.88	14.343		
6,250.00	5,350.00	4,870.00	4,895.59	21.99	111.77	75.035	-2,876.02	-402.57	1,879.86	1,749.76	130.10	14.450		
6,300.00	5,350.00	4,870.00	4,895.59	22.14	111.77	75.035	-2,876.02	-402.57	1,898.02	1,767.71	130.32	14.565		
6,350.00	5,350.00	4,870.00	4,895.59	22.32	111.77	75.035	-2,876.02	-402.57	1,917.32	1,786.76	130.56	14.686		
6,400.00	5,350.00	4,870.00	4,895.59	22.51	111.77	75.035	-2,876.02	-402.57	1,937.71	1,806.91	130.80	14.814		
6,450.00	5,350.00	4,870.00	4,895.59	22.74	111.77	75.035	-2,876.02	-402.57	1,959.17	1,828.11	131.06	14.949		
6,500.00	5,350.00	4,870.00	4,895.59	22.98	111.77	75.035	-2,876.02	-402.57	1,981.66	1,850.33	131.32	15.090		
6,550.00	5,350.00	4,870.00	4,895.59	23.24	111.77	75.035	-2,876.02	-402.57	2,005.14	1,873.53	131.60	15.236		
6,600.00	5,350.00	4,870.00	4,895.59	23.52	111.77	75.035	-2,876.02	-402.57	2,029.58	1,897.70	131.88	15.389		
6,650.00	5,350.00	4,870.00	4,895.59	23.81	111.77	75.035	-2,876.02	-402.57	2,054.95	1,922.77	132.18	15.546		
6,700.00	5,350.00	4,870.00	4,895.59	24.11	111.77	75.035	-2,876.02	-402.57	2,081.21	1,948.73	132.48	15.709		
6,750.00	5,350.00	4,870.00	4,895.59	24.43	111.77	75.035	-2,876.02	-402.57	2,108.33	1,975.53	132.80	15.876		
6,800.00	5,350.00	4,870.00	4,895.59	24.75	111.77	75.035	-2,876.02	-402.57	2,136.27	2,003.16	133.11	16.048		
6,850.00	5,350.00	4,870.00	4,895.59	25.09	111.77	75.035	-2,876.02	-402.57	2,165.01	2,031.57	133.44	16.224		
6,900.00	5,350.00	4,870.00	4,895.59	25.43	111.77	75.035	-2,876.02	-402.57	2,194.52	2,060.74	133.78	16.404		
6,950.00	5,350.00	4,870.00	4,895.59	25.79	111.77	75.035	-2,876.02	-402.57	2,224.75	2,090.63	134.12	16.588		
7,000.00	5,350.00	4,870.00	4,895.59	26.15	111.77	75.035	-2,876.02	-402.57	2,255.69	2,121.22	134.47	16.775		
7,050.00	5,350.00	4,870.00	4,895.59	26.52	111.77	75.035	-2,876.02	-402.57	2,287.30	2,152.48	134.83	16.965		
7,100.00	5,350.00	4,870.00	4,895.59	26.89	111.77	75.035	-2,876.02	-402.57	2,319.56	2,184.38	135.18	17.159		
7,150.00	5,350.00	4,870.00	4,895.59	27.28	111.77	75.035	-2,876.02	-402.57	2,352.44	2,216.89	135.56	17.354		
7,200.00	5,350.00	4,870.00	4,895.59	27.67	111.77	75.035	-2,876.02	-402.57	2,385.92	2,249.99	135.93	17.553		
7,250.00	5,350.00	4,870.00	4,895.59	28.07	111.77	75.035	-2,876.02	-402.57	2,419.96	2,283.66	136.31	17.754		
7,300.00	5,350.00	4,870.00	4,895.59	28.47	111.77	75.035	-2,876.02	-402.57	2,454.55	2,317.86	136.69	17.957		
7,350.00	5,350.00	4,870.00	4,895.59	28.88	111.77	75.035	-2,876.02	-402.57	2,489.67	2,352.59	137.08	18.162		
7,400.00	5,350.00	4,870.00	4,895.59	29.29	111.77	75.035	-2,876.02	-402.57	2,525.29	2,387.81	137.47	18.369		
7,450.00	5,350.00	4,870.00	4,895.59	29.71	111.77	75.035	-2,876.02	-402.57	2,561.38	2,423.51	137.88	18.577		
7,500.00	5,350.00	4,870.00	4,895.59	30.13	111.77	75.035	-2,876.02	-402.57	2,597.94	2,459.66	138.28	18.788		
7,550.00	5,350.00	4,870.00	4,895.59	30.56	111.77	75.035	-2,876.02	-402.57	2,634.94	2,496.25	138.69	18.999		
7,600.00	5,350.00	4,870.00	4,895.59	30.99	111.77	75.035	-2,876.02	-402.57	2,672.37	2,533.27	139.10	19.212		
7,650.00	5,350.00	4,870.00	4,895.59	31.43	111.77	75.035	-2,876.02	-402.57	2,710.20	2,570.68	139.52	19.425		
7,700.00	5,350.00	4,870.00	4,895.59	31.87	111.77	75.035	-2,876.02	-402.57	2,748.41	2,608.48	139.94	19.640		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 400-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	4,870.00	4,895.59	32.31	111.77	75.035	-2,876.02	-402.57	2,787.00	2,646.64	140.36	19.855	
7,800.00	5,350.00	4,870.00	4,895.59	32.76	111.77	75.035	-2,876.02	-402.57	2,825.95	2,685.16	140.79	20.072	
7,850.00	5,350.00	4,870.00	4,895.59	33.21	111.77	75.035	-2,876.02	-402.57	2,865.25	2,724.02	141.22	20.289	
7,900.00	5,350.00	4,870.00	4,895.59	33.66	111.77	75.035	-2,876.02	-402.57	2,904.87	2,763.21	141.66	20.506	
7,950.00	5,350.00	4,870.00	4,895.59	34.12	111.77	75.035	-2,876.02	-402.57	2,944.80	2,802.71	142.10	20.724	
8,000.00	5,350.00	4,870.00	4,895.59	34.58	111.77	75.035	-2,876.02	-402.57	2,985.04	2,842.51	142.54	20.942	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 327-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	13.00	0.00	0.00	-119.911	-237.67	-413.14	476.80				
50.00	50.00	37.00	50.00	0.05	0.32	-119.911	-237.67	-413.14	476.63	476.26	0.37	1,289.778	
100.00	100.00	87.00	100.00	0.14	0.74	-119.911	-237.67	-413.14	476.63	475.74	0.89	538.028	
150.00	150.00	137.00	150.00	0.32	1.17	-119.911	-237.67	-413.14	476.63	475.13	1.49	319.491	
200.00	200.00	187.00	200.00	0.50	1.60	-119.911	-237.67	-413.14	476.63	474.53	2.10	227.205	
250.00	250.00	237.00	250.00	0.68	2.02	-119.911	-237.67	-413.14	476.63	473.92	2.70	176.284	
300.00	300.00	287.00	300.00	0.86	2.45	-119.911	-237.67	-413.14	476.63	473.32	3.31	144.009	
350.00	350.00	337.00	350.00	1.03	3.01	23.415	-237.67	-413.14	476.22	472.18	4.05	117.681	
400.00	399.98	386.98	399.98	1.21	4.09	23.488	-237.67	-413.14	475.02	469.71	5.31	89.435	
450.00	449.93	436.93	449.93	1.38	5.17	23.609	-237.67	-413.14	473.02	466.45	6.57	71.959	
500.00	499.84	486.84	499.84	1.55	6.25	23.781	-237.67	-413.14	470.23	462.40	7.83	60.047	
550.00	549.68	536.68	549.68	1.73	7.33	24.004	-237.67	-413.14	466.64	457.55	9.09	51.349	
600.00	599.45	586.45	599.45	1.90	8.41	24.281	-237.67	-413.14	462.26	451.93	10.34	44.722	
650.00	649.13	636.13	649.13	2.08	9.48	24.616	-237.67	-413.14	457.11	445.53	11.58	39.473	
700.00	698.70	685.70	698.70	2.26	10.55	25.011	-237.67	-413.14	451.17	438.36	12.81	35.210	
750.00	748.15	735.15	748.15	2.44	11.62	25.471	-237.67	-413.14	444.47	430.44	14.04	31.660	
800.00	797.47	784.47	797.47	2.62	12.69	26.001	-237.67	-413.14	437.02	421.77	15.25	28.650	
850.00	846.63	833.63	846.63	2.80	13.93	26.608	-237.67	-413.14	428.83	412.20	16.63	25.786	
900.00	895.62	882.62	895.62	2.99	15.50	27.297	-237.67	-413.14	419.90	401.58	18.32	22.917	
950.00	944.44	931.44	944.44	3.18	17.07	28.079	-237.67	-413.14	410.27	390.27	20.00	20.511	
1,000.00	993.06	980.09	993.06	3.37	18.69	28.963	-237.67	-413.14	399.95	378.24	21.72	18.418	
1,050.00	1,041.46	1,028.52	1,041.46	3.56	20.39	29.961	-237.67	-413.14	388.97	365.47	23.50	16.554	
1,100.00	1,089.64	1,076.70	1,089.64	3.76	21.91	31.088	-237.67	-413.14	377.35	352.25	25.10	15.035	
1,150.00	1,137.58	1,124.67	1,137.58	3.96	23.41	32.360	-237.67	-413.14	365.13	338.46	26.68	13.688	
1,200.00	1,185.27	1,172.36	1,185.27	4.16	24.82	33.797	-237.67	-413.14	352.36	324.20	28.16	12.512	
1,250.00	1,232.68	1,219.79	1,232.68	4.36	26.22	35.422	-237.67	-413.14	339.08	309.44	29.64	11.439	
1,300.00	1,279.83	1,266.94	1,279.83	4.57	27.62	37.197	-237.67	-413.14	325.41	294.25	31.16	10.445	
1,350.00	1,326.92	1,314.03	1,326.92	4.78	29.02	39.022	-237.67	-413.14	311.89	279.15	32.74	9.526	
1,400.00	1,374.01	1,361.15	1,374.01	4.99	30.39	41.002	-237.67	-413.14	298.70	264.39	34.31	8.705	
1,450.00	1,421.10	1,408.24	1,421.10	5.20	31.73	43.154	-237.67	-413.14	285.89	250.01	35.88	7.968	
1,500.00	1,468.19	1,455.32	1,468.19	5.41	33.08	45.493	-237.67	-413.14	273.51	236.05	37.47	7.300	
1,550.00	1,515.28	1,502.44	1,515.28	5.63	34.39	48.036	-237.67	-413.14	261.64	222.60	39.03	6.703	
1,600.00	1,562.37	1,549.53	1,562.37	5.84	35.68	50.799	-237.67	-413.14	250.32	209.72	40.60	6.165	
1,650.00	1,609.46	1,596.62	1,609.46	6.06	36.98	53.798	-237.67	-413.14	239.65	197.46	42.19	5.680	
1,700.00	1,656.55	1,643.71	1,656.55	6.27	38.27	57.046	-237.67	-413.14	229.72	185.92	43.80	5.244	
1,750.00	1,703.64	1,690.83	1,703.64	6.49	39.56	60.551	-237.67	-413.14	220.62	175.21	45.42	4.858	
1,800.00	1,750.73	1,737.92	1,750.73	6.71	40.75	64.315	-237.67	-413.14	212.47	165.52	46.95	4.526	
1,850.00	1,797.82	1,785.01	1,797.82	6.93	41.94	68.333	-237.67	-413.14	205.37	156.89	48.48	4.236	
1,900.00	1,844.91	1,832.10	1,844.91	7.14	43.13	72.588	-237.67	-413.14	199.44	149.43	50.01	3.988	
1,950.00	1,892.00	1,879.19	1,892.00	7.36	44.32	77.051	-237.67	-413.14	194.78	143.25	51.53	3.780	
2,000.00	1,939.08	1,926.28	1,939.08	7.58	45.50	81.678	-237.67	-413.14	191.49	138.47	53.02	3.611	
2,050.00	1,986.17	1,973.41	1,986.17	7.80	46.61	86.418	-237.67	-413.14	189.64	135.25	54.39	3.486	
2,087.41	2,021.41	2,008.64	2,021.41	7.96	47.42	90.000	-237.67	-413.14	189.23	133.85	55.38	3.417 CC	
2,100.00	2,033.26	2,020.50	2,033.26	8.02	47.69	91.207	-237.67	-413.14	189.27	133.57	55.70	3.398	
2,150.00	2,080.35	2,067.59	2,080.35	8.24	48.77	95.979	-237.67	-413.14	190.39	133.42	56.97	3.342 ES	
2,200.00	2,127.44	2,114.67	2,127.44	8.46	49.86	100.669	-237.67	-413.14	192.97	134.79	58.18	3.317 SF	
2,250.00	2,174.53	2,161.76	2,174.53	8.68	50.94	105.220	-237.67	-413.14	196.96	137.61	59.35	3.319	
2,300.00	2,221.62	2,208.87	2,221.62	8.90	52.00	109.582	-237.67	-413.14	202.27	141.83	60.45	3.346	
2,350.00	2,268.71	2,255.96	2,268.71	9.12	53.03	113.721	-237.67	-413.14	208.81	147.31	61.50	3.396	
2,400.00	2,315.80	2,303.05	2,315.80	9.34	54.06	117.613	-237.67	-413.14	216.45	153.93	62.52	3.462	
2,450.00	2,362.89	2,350.14	2,362.89	9.56	55.10	121.247	-237.67	-413.14	225.09	161.57	63.52	3.543	
2,500.00	2,409.98	2,397.23	2,409.98	9.78	56.13	124.621	-237.67	-413.14	234.62	170.10	64.52	3.636	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 327-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,550.00	2,457.07	2,444.34	2,457.07	10.00	57.15	127.742	-237.67	-413.14	244.94	179.44	65.50	3.739	
2,600.00	2,504.16	2,491.43	2,504.16	10.22	58.13	130.621	-237.67	-413.14	255.94	189.49	66.45	3.852	
2,650.00	2,551.25	2,538.52	2,551.25	10.44	59.12	133.271	-237.67	-413.14	267.55	200.15	67.40	3.969	
2,700.00	2,598.34	2,585.61	2,598.34	10.67	60.10	135.709	-237.67	-413.14	279.69	211.32	68.37	4.091	
2,750.00	2,645.42	2,632.70	2,645.42	10.89	61.09	137.952	-237.67	-413.14	292.29	222.95	69.34	4.216	
2,800.00	2,692.51	2,679.80	2,692.51	11.11	62.07	140.015	-237.67	-413.14	305.29	234.98	70.32	4.342	
2,850.00	2,739.60	2,726.89	2,739.60	11.33	63.06	141.916	-237.67	-413.14	318.66	247.35	71.31	4.469	
2,900.00	2,786.69	2,773.98	2,786.69	11.55	64.05	143.668	-237.67	-413.14	332.33	260.03	72.31	4.596	
2,950.00	2,833.78	2,821.07	2,833.78	11.77	65.04	145.286	-237.67	-413.14	346.28	272.97	73.31	4.723	
3,000.00	2,880.87	2,868.16	2,880.87	12.00	66.02	146.781	-237.67	-413.14	360.48	286.15	74.33	4.850	
3,050.00	2,927.96	2,915.26	2,927.96	12.22	66.96	148.167	-237.67	-413.14	374.89	299.59	75.31	4.978	
3,100.00	2,975.05	2,962.35	2,975.05	12.44	67.85	149.452	-237.67	-413.14	389.50	313.25	76.25	5.108	
3,150.00	3,022.14	3,009.43	3,022.14	12.66	68.75	150.646	-237.67	-413.14	404.27	327.08	77.19	5.237	
3,200.00	3,069.23	3,056.52	3,069.23	12.89	69.64	151.758	-237.67	-413.14	419.20	341.06	78.15	5.364	
3,250.00	3,116.32	3,103.61	3,116.32	13.11	70.53	152.795	-237.67	-413.14	434.27	355.17	79.10	5.490	
3,300.00	3,163.41	3,150.70	3,163.41	13.33	71.42	153.764	-237.67	-413.14	449.46	369.39	80.07	5.614	
3,350.00	3,210.50	3,197.79	3,210.50	13.55	72.31	154.671	-237.67	-413.14	464.76	383.73	81.03	5.735	
3,400.00	3,257.59	3,244.88	3,257.59	13.78	73.20	155.521	-237.67	-413.14	480.16	398.16	82.01	5.855	
3,450.00	3,304.68	3,291.99	3,304.68	14.00	74.07	156.319	-237.67	-413.14	495.66	412.70	82.96	5.975	
3,500.00	3,351.76	3,339.08	3,351.76	14.22	74.93	157.069	-237.67	-413.14	511.24	427.33	83.90	6.093	
3,550.00	3,398.85	3,386.17	3,398.85	14.44	75.78	157.775	-237.67	-413.14	526.89	442.04	84.85	6.210	
3,600.00	3,445.94	3,433.26	3,445.94	14.67	76.63	158.442	-237.67	-413.14	542.61	456.82	85.79	6.325	
3,650.00	3,493.03	3,480.35	3,493.03	14.89	77.48	159.071	-237.67	-413.14	558.40	471.65	86.74	6.437	
3,700.00	3,540.12	3,527.44	3,540.12	15.11	78.33	159.666	-237.67	-413.14	574.24	486.55	87.70	6.548	
3,750.00	3,587.21	3,574.53	3,587.21	15.34	79.18	160.229	-237.67	-413.14	590.14	501.49	88.65	6.657	
3,800.00	3,634.30	3,621.62	3,634.30	15.56	80.03	160.764	-237.67	-413.14	606.09	516.48	89.61	6.764	
3,850.00	3,681.39	3,668.71	3,681.39	15.78	80.89	161.271	-237.67	-413.14	622.08	531.51	90.57	6.868	
3,900.00	3,728.48	3,715.80	3,728.48	16.01	81.75	161.753	-237.67	-413.14	638.11	546.58	91.54	6.971	
3,950.00	3,775.57	3,762.89	3,775.57	16.23	82.60	162.211	-237.67	-413.14	654.19	561.68	92.51	7.072	
4,000.00	3,822.66	3,809.98	3,822.66	16.45	83.46	162.648	-237.67	-413.14	670.30	576.82	93.48	7.171	
4,050.00	3,869.75	3,857.07	3,869.75	16.67	84.32	163.065	-237.67	-413.14	686.44	591.99	94.45	7.268	
4,100.00	3,916.84	3,904.16	3,916.84	16.90	85.18	163.462	-237.67	-413.14	702.61	607.19	95.42	7.363	
4,150.00	3,963.93	3,951.25	3,963.93	17.12	86.04	163.842	-237.67	-413.14	718.82	622.42	96.40	7.457	
4,200.00	4,011.02	3,998.33	4,011.02	17.34	86.90	164.205	-237.67	-413.14	735.05	637.68	97.37	7.549	
4,250.00	4,058.10	4,045.44	4,058.10	17.57	87.75	164.552	-237.67	-413.14	751.31	652.96	98.35	7.639	
4,300.00	4,105.19	4,092.52	4,105.19	17.79	88.57	164.885	-237.67	-413.14	767.59	668.30	99.29	7.731	
4,350.00	4,152.28	4,139.61	4,152.28	18.01	89.39	165.205	-237.67	-413.14	783.89	683.66	100.23	7.821	
4,400.00	4,199.37	4,186.70	4,199.37	18.24	90.21	165.511	-237.67	-413.14	800.21	699.04	101.18	7.909	
4,450.00	4,246.46	4,233.79	4,246.46	18.46	91.04	165.805	-237.67	-413.14	816.56	714.43	102.12	7.996	
4,500.00	4,293.55	4,280.88	4,293.55	18.68	91.86	166.088	-237.67	-413.14	832.92	729.85	103.07	8.081	
4,550.00	4,340.64	4,327.97	4,340.64	18.91	92.68	166.359	-237.67	-413.14	849.30	745.28	104.01	8.165	
4,600.00	4,387.73	4,375.06	4,387.73	19.13	93.50	166.621	-237.67	-413.14	865.69	760.73	104.96	8.248	
4,650.00	4,434.91	4,422.24	4,434.91	19.35	94.32	171.563	-237.67	-413.14	881.91	775.51	106.40	8.288	
4,700.00	4,482.67	4,470.00	4,482.67	19.57	95.15	-176.641	-237.67	-413.14	896.66	788.28	108.38	8.273	
4,750.00	4,530.89	4,518.22	4,530.89	19.77	95.99	-162.354	-237.67	-413.14	909.64	799.35	110.29	8.247	
4,800.00	4,579.34	4,566.68	4,579.34	19.95	96.90	-146.381	-237.67	-413.14	920.80	808.67	112.13	8.212	
4,850.00	4,627.79	4,615.13	4,627.79	20.12	97.84	-130.771	-237.67	-413.14	930.14	816.29	113.84	8.170	
4,900.00	4,676.00	4,663.33	4,676.00	20.28	98.77	-117.530	-237.67	-413.14	937.69	822.30	115.39	8.126	
4,950.00	4,723.73	4,711.06	4,723.73	20.42	99.70	-107.394	-237.67	-413.14	943.50	826.74	116.76	8.081	
5,000.00	4,770.75	4,758.08	4,770.75	20.54	100.61	-100.072	-237.67	-413.14	947.68	829.70	117.98	8.033	
5,050.00	4,816.83	4,804.17	4,816.83	20.66	101.54	-94.955	-237.67	-413.14	950.35	831.24	119.11	7.979	
5,100.00	4,861.74	4,815.00	4,827.66	20.76	101.77	-90.530	-237.67	-413.14	952.26	832.84	119.42	7.974	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 327-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toelface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	4,815.00	4,827.66	20.86	101.77	-86.819	-237.67	-413.14	954.93	835.58	119.36	8.001	
5,200.00	4,947.22	4,815.00	4,827.66	20.94	101.77	-83.809	-237.67	-413.14	958.40	839.24	119.16	8.043	
5,250.00	4,987.37	4,815.00	4,827.66	21.01	101.77	-81.308	-237.67	-413.14	962.65	843.80	118.85	8.100	
5,300.00	5,025.51	4,815.00	4,827.66	21.07	101.77	-79.181	-237.67	-413.14	967.63	849.21	118.42	8.171	
5,350.00	5,061.48	4,815.00	4,827.66	21.13	101.77	-77.335	-237.67	-413.14	973.33	855.45	117.88	8.257	
5,400.00	5,095.10	4,815.00	4,827.66	21.18	101.77	-75.704	-237.67	-413.14	979.69	862.45	117.24	8.356	
5,450.00	5,126.19	4,815.00	4,827.66	21.21	101.77	-74.241	-237.67	-413.14	986.67	870.16	116.51	8.468	
5,500.00	5,154.62	4,815.00	4,827.66	21.25	101.77	-72.911	-237.67	-413.14	994.23	878.52	115.72	8.592	
5,550.00	5,180.35	4,815.00	4,827.66	21.27	101.77	-72.027	-237.67	-413.14	1,002.40	887.26	115.14	8.706	
5,600.00	5,205.35	4,815.00	4,827.66	21.30	101.77	-72.027	-237.67	-413.14	1,012.49	897.23	115.26	8.784	
5,650.00	5,230.35	4,815.00	4,827.66	21.33	101.77	-72.027	-237.67	-413.14	1,024.91	909.52	115.39	8.882	
5,700.00	5,255.35	4,815.00	4,827.66	21.36	101.77	-72.027	-237.67	-413.14	1,039.60	924.07	115.53	8.999	
5,750.00	5,280.20	4,815.00	4,827.66	21.40	101.77	-71.525	-237.67	-413.14	1,056.40	941.14	115.25	9.166	
5,800.00	5,302.17	4,815.00	4,827.66	21.44	101.77	-69.716	-237.67	-413.14	1,074.30	960.52	113.78	9.442	
5,850.00	5,320.15	4,815.00	4,827.66	21.48	101.77	-67.859	-237.67	-413.14	1,092.80	980.71	112.09	9.749	
5,900.00	5,333.99	4,815.00	4,827.66	21.52	101.77	-65.976	-237.67	-413.14	1,111.75	1,001.50	110.25	10.084	
5,950.00	5,343.59	4,815.00	4,827.66	21.56	101.77	-64.087	-237.67	-413.14	1,130.98	1,022.65	108.34	10.439	
6,000.00	5,348.88	4,815.00	4,827.66	21.60	101.77	-62.215	-237.67	-413.14	1,150.33	1,043.89	106.44	10.807	
6,050.00	5,350.00	4,815.00	4,827.66	21.64	101.77	-60.896	-237.67	-413.14	1,169.74	1,064.53	105.21	11.118	
6,100.00	5,350.00	4,815.00	4,827.66	21.69	101.77	-60.896	-237.67	-413.14	1,190.44	1,085.08	105.37	11.298	
6,150.00	5,350.00	4,815.00	4,827.66	21.77	101.77	-60.896	-237.67	-413.14	1,212.86	1,107.31	105.55	11.491	
6,200.00	5,350.00	4,815.00	4,827.66	21.87	101.77	-60.896	-237.67	-413.14	1,236.89	1,131.15	105.74	11.698	
6,250.00	5,350.00	4,815.00	4,827.66	21.99	101.77	-60.896	-237.67	-413.14	1,262.45	1,156.50	105.95	11.916	
6,300.00	5,350.00	4,815.00	4,827.66	22.14	101.77	-60.896	-237.67	-413.14	1,289.44	1,183.28	106.16	12.146	
6,350.00	5,350.00	4,815.00	4,827.66	22.32	101.77	-60.896	-237.67	-413.14	1,317.77	1,211.38	106.39	12.386	
6,400.00	5,350.00	4,815.00	4,827.66	22.51	101.77	-60.896	-237.67	-413.14	1,347.36	1,240.74	106.63	12.636	
6,450.00	5,350.00	4,815.00	4,827.66	22.74	101.77	-60.896	-237.67	-413.14	1,378.14	1,271.25	106.88	12.894	
6,500.00	5,350.00	4,815.00	4,827.66	22.98	101.77	-60.896	-237.67	-413.14	1,410.01	1,302.87	107.14	13.160	
6,550.00	5,350.00	4,815.00	4,827.66	23.24	101.77	-60.896	-237.67	-413.14	1,442.92	1,335.50	107.42	13.433	
6,600.00	5,350.00	4,815.00	4,827.66	23.52	101.77	-60.896	-237.67	-413.14	1,476.78	1,369.09	107.69	13.713	
6,650.00	5,350.00	4,815.00	4,827.66	23.81	101.77	-60.896	-237.67	-413.14	1,511.54	1,403.55	107.99	13.997	
6,700.00	5,350.00	4,815.00	4,827.66	24.11	101.77	-60.896	-237.67	-413.14	1,547.13	1,438.85	108.29	14.287	
6,750.00	5,350.00	4,815.00	4,827.66	24.43	101.77	-60.896	-237.67	-413.14	1,583.51	1,474.91	108.60	14.581	
6,800.00	5,350.00	4,815.00	4,827.66	24.75	101.77	-60.896	-237.67	-413.14	1,620.61	1,511.70	108.91	14.880	
6,850.00	5,350.00	4,815.00	4,827.66	25.09	101.77	-60.896	-237.67	-413.14	1,658.38	1,549.14	109.24	15.181	
6,900.00	5,350.00	4,815.00	4,827.66	25.43	101.77	-60.896	-237.67	-413.14	1,696.79	1,587.23	109.57	15.486	
6,950.00	5,350.00	4,815.00	4,827.66	25.79	101.77	-60.896	-237.67	-413.14	1,735.79	1,625.88	109.91	15.793	
7,000.00	5,350.00	4,815.00	4,827.66	26.15	101.77	-60.896	-237.67	-413.14	1,775.35	1,665.09	110.25	16.102	
7,050.00	5,350.00	4,815.00	4,827.66	26.52	101.77	-60.896	-237.67	-413.14	1,815.41	1,704.81	110.61	16.413	
7,100.00	5,350.00	4,815.00	4,827.66	26.89	101.77	-60.896	-237.67	-413.14	1,855.96	1,745.00	110.96	16.726	
7,150.00	5,350.00	4,815.00	4,827.66	27.28	101.77	-60.896	-237.67	-413.14	1,896.96	1,785.63	111.33	17.039	
7,200.00	5,350.00	4,815.00	4,827.66	27.67	101.77	-60.896	-237.67	-413.14	1,938.39	1,826.69	111.70	17.354	
7,250.00	5,350.00	4,815.00	4,827.66	28.07	101.77	-60.896	-237.67	-413.14	1,980.21	1,868.13	112.07	17.669	
7,300.00	5,350.00	4,815.00	4,827.66	28.47	101.77	-60.896	-237.67	-413.14	2,022.40	1,909.95	112.45	17.985	
7,350.00	5,350.00	4,815.00	4,827.66	28.88	101.77	-60.896	-237.67	-413.14	2,064.94	1,952.10	112.84	18.300	
7,400.00	5,350.00	4,815.00	4,827.66	29.29	101.77	-60.896	-237.67	-413.14	2,107.80	1,994.58	113.22	18.616	
7,450.00	5,350.00	4,815.00	4,827.66	29.71	101.77	-60.896	-237.67	-413.14	2,150.98	2,037.36	113.62	18.931	
7,500.00	5,350.00	4,815.00	4,827.66	30.13	101.77	-60.896	-237.67	-413.14	2,194.44	2,080.43	114.01	19.247	
7,550.00	5,350.00	4,815.00	4,827.66	30.56	101.77	-60.896	-237.67	-413.14	2,238.18	2,123.76	114.42	19.561	
7,600.00	5,350.00	4,815.00	4,827.66	30.99	101.77	-60.896	-237.67	-413.14	2,282.17	2,167.35	114.82	19.876	
7,650.00	5,350.00	4,815.00	4,827.66	31.43	101.77	-60.896	-237.67	-413.14	2,326.41	2,211.18	115.23	20.189	
7,700.00	5,350.00	4,815.00	4,827.66	31.87	101.77	-60.896	-237.67	-413.14	2,370.88	2,255.24	115.64	20.502	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 327-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	4,815.00	4,827.66	32.31	101.77	-60.896	-237.67	-413.14	2,415.56	2,299.50	116.06	20.813	
7,800.00	5,350.00	4,815.00	4,827.66	32.76	101.77	-60.896	-237.67	-413.14	2,460.45	2,343.97	116.47	21.124	
7,850.00	5,350.00	4,815.00	4,827.66	33.21	101.77	-60.896	-237.67	-413.14	2,505.53	2,388.63	116.90	21.434	
7,900.00	5,350.00	4,815.00	4,827.66	33.66	101.77	-60.896	-237.67	-413.14	2,550.79	2,433.48	117.32	21.742	
7,950.00	5,350.00	4,815.00	4,827.66	34.12	101.77	-60.896	-237.67	-413.14	2,596.23	2,478.49	117.75	22.049	
8,000.00	5,350.00	4,815.00	4,827.66	34.58	101.77	-60.896	-237.67	-413.14	2,641.84	2,523.66	118.18	22.355	
8,050.00	5,350.00	4,815.00	4,827.66	35.05	101.77	-60.896	-237.67	-413.14	2,687.60	2,568.99	118.61	22.659	
8,100.00	5,350.00	4,815.00	4,827.66	35.51	101.77	-60.896	-237.67	-413.14	2,733.50	2,614.46	119.04	22.963	
8,150.00	5,350.00	4,815.00	4,827.66	35.98	101.77	-60.896	-237.67	-413.14	2,779.55	2,660.07	119.48	23.264	
8,200.00	5,350.00	4,815.00	4,827.66	36.46	101.77	-60.896	-237.67	-413.14	2,825.74	2,705.82	119.92	23.564	
8,250.00	5,350.00	4,815.00	4,827.66	36.93	101.77	-60.896	-237.67	-413.14	2,872.05	2,751.69	120.36	23.863	
8,300.00	5,350.00	4,815.00	4,827.66	37.41	101.77	-60.896	-237.67	-413.14	2,918.48	2,797.68	120.80	24.160	
8,350.00	5,350.00	4,815.00	4,827.66	37.89	101.77	-60.896	-237.67	-413.14	2,965.03	2,843.79	121.24	24.455	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 167-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	7.00	0.00	0.00	-140.811	-1,259.32	-1,026.69	1,624.82				
50.00	50.00	43.00	50.00	0.05	0.34	-140.811	-1,259.32	-1,026.69	1,624.80	1,624.40	0.40	4,078.029	
100.00	100.00	93.00	100.00	0.14	0.75	-140.811	-1,259.32	-1,026.69	1,624.80	1,623.91	0.89	1,828.063	
150.00	150.00	143.00	150.00	0.32	1.15	-140.811	-1,259.32	-1,026.69	1,624.80	1,623.33	1.47	1,106.202	
200.00	200.00	193.00	200.00	0.50	1.80	-140.811	-1,259.32	-1,026.69	1,624.80	1,622.50	2.30	705.255	
250.00	250.00	243.00	250.00	0.68	2.69	-140.811	-1,259.32	-1,026.69	1,624.80	1,621.43	3.37	481.522	
300.00	300.00	293.00	300.00	0.86	3.60	-140.811	-1,259.32	-1,026.69	1,624.80	1,620.34	4.46	364.338	
350.00	350.00	343.00	350.00	1.03	4.51	2.493	-1,259.32	-1,026.69	1,624.37	1,618.81	5.55	292.590	
400.00	399.98	392.98	399.98	1.21	5.42	2.496	-1,259.32	-1,026.69	1,623.06	1,616.41	6.65	244.165	
450.00	449.93	442.93	449.93	1.38	6.34	2.501	-1,259.32	-1,026.69	1,620.88	1,613.14	7.74	209.378	
500.00	499.84	492.84	499.84	1.55	7.25	2.509	-1,259.32	-1,026.69	1,617.83	1,609.00	8.83	183.199	
550.00	549.68	542.68	549.68	1.73	8.16	2.518	-1,259.32	-1,026.69	1,613.91	1,603.99	9.92	162.657	
600.00	599.45	592.45	599.45	1.90	9.26	2.530	-1,259.32	-1,026.69	1,609.12	1,597.93	11.19	143.793	
650.00	649.13	642.13	649.13	2.08	10.36	2.544	-1,259.32	-1,026.69	1,603.47	1,591.02	12.45	128.775	
700.00	698.70	691.70	698.70	2.26	11.45	2.560	-1,259.32	-1,026.69	1,596.95	1,583.25	13.70	116.557	
750.00	748.15	741.15	748.15	2.44	12.54	2.579	-1,259.32	-1,026.69	1,589.57	1,574.63	14.94	106.404	
800.00	797.47	790.47	797.47	2.62	13.63	2.600	-1,259.32	-1,026.69	1,581.32	1,565.16	16.16	97.835	
850.00	846.63	839.63	846.63	2.80	14.72	2.623	-1,259.32	-1,026.69	1,572.22	1,554.84	17.37	90.491	
900.00	895.62	888.62	895.62	2.99	15.80	2.649	-1,259.32	-1,026.69	1,562.26	1,543.69	18.57	84.149	
950.00	944.44	947.00	953.99	3.18	17.09	2.682	-1,259.32	-1,026.69	1,551.48	1,531.53	19.95	77.785	
1,000.00	993.06	1,010.00	1,016.98	3.37	18.77	2.720	-1,259.32	-1,026.69	1,539.98	1,518.29	21.69	71.004	
1,050.00	1,041.46	1,034.48	1,041.46	3.56	19.42	2.744	-1,259.32	-1,026.69	1,527.28	1,504.87	22.42	68.128	
1,100.00	1,089.64	1,082.68	1,089.64	3.76	20.68	2.782	-1,259.32	-1,026.69	1,513.94	1,490.22	23.72	63.838	
1,150.00	1,137.58	1,130.62	1,137.58	3.96	21.83	2.823	-1,259.32	-1,026.69	1,499.75	1,474.86	24.89	60.253	
1,200.00	1,185.27	1,178.32	1,185.27	4.16	22.96	2.867	-1,259.32	-1,026.69	1,484.73	1,458.71	26.03	57.042	
1,250.00	1,232.68	1,225.73	1,232.68	4.36	24.02	2.915	-1,259.32	-1,026.69	1,468.89	1,441.81	27.08	54.246	
1,300.00	1,279.83	1,272.88	1,279.83	4.57	25.07	2.960	-1,259.32	-1,026.69	1,452.27	1,424.12	28.15	51.589	
1,350.00	1,326.92	1,319.98	1,326.92	4.78	26.09	2.995	-1,259.32	-1,026.69	1,435.48	1,406.20	29.28	49.031	
1,400.00	1,374.01	1,367.07	1,374.01	4.99	27.07	3.030	-1,259.32	-1,026.69	1,418.69	1,388.31	30.37	46.709	
1,450.00	1,421.10	1,414.16	1,421.10	5.20	28.06	3.066	-1,259.32	-1,026.69	1,401.90	1,370.43	31.47	44.547	
1,500.00	1,468.19	1,461.25	1,468.19	5.41	29.05	3.104	-1,259.32	-1,026.69	1,385.11	1,352.54	32.57	42.529	
1,550.00	1,515.28	1,508.35	1,515.28	5.63	29.94	3.142	-1,259.32	-1,026.69	1,368.32	1,334.74	33.58	40.745	
1,600.00	1,562.37	1,555.44	1,562.37	5.84	30.76	3.181	-1,259.32	-1,026.69	1,351.53	1,317.01	34.52	39.149	
1,650.00	1,609.46	1,602.53	1,609.46	6.06	31.57	3.221	-1,259.32	-1,026.69	1,334.75	1,299.28	35.46	37.636	
1,700.00	1,656.55	1,649.62	1,656.55	6.27	32.39	3.262	-1,259.32	-1,026.69	1,317.96	1,281.55	36.41	36.201	
1,750.00	1,703.64	1,696.71	1,703.64	6.49	33.20	3.304	-1,259.32	-1,026.69	1,301.17	1,263.82	37.35	34.838	
1,800.00	1,750.73	1,743.80	1,750.73	6.71	34.02	3.347	-1,259.32	-1,026.69	1,284.39	1,246.09	38.29	33.541	
1,850.00	1,797.82	1,790.88	1,797.82	6.93	34.83	3.392	-1,259.32	-1,026.69	1,267.60	1,228.36	39.24	32.306	
1,900.00	1,844.91	1,837.97	1,844.91	7.14	35.65	3.437	-1,259.32	-1,026.69	1,250.82	1,210.64	40.18	31.128	
1,950.00	1,892.00	1,885.06	1,892.00	7.36	36.46	3.484	-1,259.32	-1,026.69	1,234.03	1,192.91	41.13	30.004	
2,000.00	1,939.08	1,933.00	1,939.92	7.58	37.29	3.533	-1,259.32	-1,026.69	1,217.25	1,175.16	42.09	28.921	
2,050.00	1,986.17	1,979.25	1,986.17	7.80	38.13	3.581	-1,259.32	-1,026.69	1,200.47	1,157.41	43.06	27.879	
2,100.00	2,033.26	2,026.34	2,033.26	8.02	38.99	3.632	-1,259.32	-1,026.69	1,183.69	1,139.64	44.04	26.875	
2,150.00	2,080.35	2,073.43	2,080.35	8.24	39.84	3.684	-1,259.32	-1,026.69	1,166.91	1,121.88	45.03	25.914	
2,200.00	2,127.44	2,120.52	2,127.44	8.46	40.70	3.738	-1,259.32	-1,026.69	1,150.13	1,104.11	46.02	24.994	
2,250.00	2,174.53	2,167.61	2,174.53	8.68	41.55	3.794	-1,259.32	-1,026.69	1,133.35	1,086.35	47.00	24.112	
2,300.00	2,221.62	2,214.70	2,221.62	8.90	42.41	3.851	-1,259.32	-1,026.69	1,116.57	1,068.58	47.99	23.267	
2,350.00	2,268.71	2,261.79	2,268.71	9.12	43.26	3.909	-1,259.32	-1,026.69	1,099.80	1,050.82	48.98	22.455	
2,400.00	2,315.80	2,308.88	2,315.80	9.34	44.12	3.970	-1,259.32	-1,026.69	1,083.02	1,033.06	49.96	21.676	
2,450.00	2,362.89	2,355.97	2,362.89	9.56	44.97	4.033	-1,259.32	-1,026.69	1,066.25	1,015.30	50.95	20.926	
2,500.00	2,409.98	2,403.06	2,409.98	9.78	45.88	4.097	-1,259.32	-1,026.69	1,049.48	997.49	51.98	20.188	
2,550.00	2,457.07	2,450.15	2,457.07	10.00	46.83	4.164	-1,259.32	-1,026.69	1,032.70	979.64	53.07	19.460	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 167-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,497.24	2,504.16	10.22	47.79	4.233	-1,259.32	-1,026.69	1,015.93	961.78	54.15	18.761	
2,650.00	2,551.25	2,544.33	2,551.25	10.44	48.74	4.304	-1,259.32	-1,026.69	999.16	943.93	55.23	18.090	
2,700.00	2,598.34	2,591.41	2,598.34	10.67	49.70	4.377	-1,259.32	-1,026.69	982.40	926.08	56.32	17.444	
2,750.00	2,645.42	2,638.50	2,645.42	10.89	50.65	4.453	-1,259.32	-1,026.69	965.63	908.23	57.40	16.823	
2,800.00	2,692.51	2,685.59	2,692.51	11.11	51.61	4.532	-1,259.32	-1,026.69	948.87	890.38	58.48	16.224	
2,850.00	2,739.60	2,732.68	2,739.60	11.33	52.56	4.614	-1,259.32	-1,026.69	932.10	872.53	59.57	15.647	
2,900.00	2,786.69	2,779.79	2,786.69	11.55	53.47	4.698	-1,259.32	-1,026.69	915.34	854.73	60.61	15.102	
2,950.00	2,833.78	2,826.88	2,833.78	11.77	54.33	4.786	-1,259.32	-1,026.69	898.58	836.97	61.61	14.586	
3,000.00	2,880.87	2,873.97	2,880.87	12.00	55.19	4.877	-1,259.32	-1,026.69	881.82	819.22	62.60	14.086	
3,050.00	2,927.96	2,921.06	2,927.96	12.22	56.05	4.972	-1,259.32	-1,026.69	865.07	801.47	63.60	13.602	
3,100.00	2,975.05	2,968.14	2,975.05	12.44	56.91	5.070	-1,259.32	-1,026.69	848.31	783.72	64.59	13.133	
3,150.00	3,022.14	3,015.23	3,022.14	12.66	57.77	5.173	-1,259.32	-1,026.69	831.56	765.97	65.59	12.678	
3,200.00	3,069.23	3,062.32	3,069.23	12.89	58.63	5.279	-1,259.32	-1,026.69	814.82	748.23	66.59	12.237	
3,250.00	3,116.32	3,109.41	3,116.32	13.11	59.49	5.390	-1,259.32	-1,026.69	798.07	730.48	67.59	11.808	
3,300.00	3,163.41	3,156.50	3,163.41	13.33	60.35	5.506	-1,259.32	-1,026.69	781.33	712.74	68.58	11.392	
3,350.00	3,210.50	3,203.59	3,210.50	13.55	61.21	5.627	-1,259.32	-1,026.69	764.59	695.00	69.58	10.988	
3,400.00	3,257.59	3,250.70	3,257.59	13.78	62.06	5.753	-1,259.32	-1,026.69	747.85	677.28	70.57	10.597	
3,450.00	3,304.68	3,297.79	3,304.68	14.00	62.88	5.885	-1,259.32	-1,026.69	731.12	659.58	71.53	10.220	
3,500.00	3,351.76	3,344.88	3,351.76	14.22	63.71	6.023	-1,259.32	-1,026.69	714.39	641.88	72.50	9.854	
3,550.00	3,398.85	3,391.96	3,398.85	14.44	64.53	6.168	-1,259.32	-1,026.69	697.66	624.19	73.47	9.496	
3,600.00	3,445.94	3,439.05	3,445.94	14.67	65.36	6.320	-1,259.32	-1,026.69	680.94	606.50	74.43	9.148	
3,650.00	3,493.03	3,486.14	3,493.03	14.89	66.18	6.479	-1,259.32	-1,026.69	664.22	588.82	75.40	8.809	
3,700.00	3,540.12	3,533.23	3,540.12	15.11	67.01	6.647	-1,259.32	-1,026.69	647.51	571.14	76.37	8.479	
3,750.00	3,587.21	3,580.32	3,587.21	15.34	67.83	6.823	-1,259.32	-1,026.69	630.80	553.46	77.34	8.157	
3,800.00	3,634.30	3,627.41	3,634.30	15.56	68.66	7.010	-1,259.32	-1,026.69	614.10	535.79	78.30	7.842	
3,850.00	3,681.39	3,674.50	3,681.39	15.78	69.50	7.206	-1,259.32	-1,026.69	597.40	518.11	79.29	7.534	
3,900.00	3,728.48	3,721.59	3,728.48	16.01	70.37	7.414	-1,259.32	-1,026.69	580.71	500.41	80.30	7.232	
3,950.00	3,775.57	3,768.68	3,775.57	16.23	71.23	7.634	-1,259.32	-1,026.69	564.03	482.72	81.31	6.937	
4,000.00	3,822.66	3,815.77	3,822.66	16.45	72.10	7.868	-1,259.32	-1,026.69	547.36	465.03	82.32	6.649	
4,050.00	3,869.75	3,862.86	3,869.75	16.67	72.96	8.116	-1,259.32	-1,026.69	530.69	447.36	83.33	6.368	
4,100.00	3,916.84	3,909.95	3,916.84	16.90	73.83	8.380	-1,259.32	-1,026.69	514.03	429.69	84.35	6.094	
4,150.00	3,963.93	3,957.04	3,963.93	17.12	74.69	8.662	-1,259.32	-1,026.69	497.39	412.03	85.36	5.827	
4,200.00	4,011.02	4,004.13	4,011.02	17.34	75.56	8.963	-1,259.32	-1,026.69	480.75	394.38	86.38	5.566	
4,250.00	4,058.10	4,051.22	4,058.10	17.57	76.42	9.286	-1,259.32	-1,026.69	464.13	376.74	87.39	5.311	
4,300.00	4,105.19	4,098.31	4,105.19	17.79	77.29	9.633	-1,259.32	-1,026.69	447.53	359.11	88.41	5.062	
4,350.00	4,152.28	4,145.40	4,152.28	18.01	78.15	10.006	-1,259.32	-1,026.69	430.93	341.51	89.42	4.819	
4,400.00	4,199.37	4,192.49	4,199.37	18.24	78.99	10.409	-1,259.32	-1,026.69	414.36	323.93	90.43	4.582	
4,450.00	4,246.46	4,239.58	4,246.46	18.46	79.83	10.846	-1,259.32	-1,026.69	397.81	306.38	91.43	4.351	
4,500.00	4,293.55	4,286.67	4,293.55	18.68	80.67	11.320	-1,259.32	-1,026.69	381.27	288.84	92.44	4.125	
4,550.00	4,340.64	4,333.76	4,340.64	18.91	81.52	11.837	-1,259.32	-1,026.69	364.77	271.32	93.45	3.903	
4,600.00	4,387.73	4,380.85	4,387.73	19.13	82.36	12.403	-1,259.32	-1,026.69	348.29	253.82	94.47	3.687	
4,650.00	4,434.91	4,428.02	4,434.91	19.35	83.20	12.997	-1,259.32	-1,026.69	332.16	235.90	96.26	3.451	
4,700.00	4,482.67	4,475.78	4,482.67	19.57	84.06	13.628	-1,259.32	-1,026.69	318.52	219.81	98.71	3.227	
4,750.00	4,530.89	4,524.01	4,530.89	19.77	84.92	14.308	-1,259.32	-1,026.69	307.90	207.04	100.86	3.053	
4,800.00	4,579.34	4,572.46	4,579.34	19.95	85.79	15.044	-1,259.32	-1,026.69	300.53	197.89	102.64	2.928	
4,850.00	4,627.79	4,620.92	4,627.79	20.12	86.64	15.833	-1,259.32	-1,026.69	296.62	192.66	103.96	2.853	
4,878.08	4,654.91	4,648.04	4,654.91	20.21	87.11	16.677	-1,259.32	-1,026.69	296.03	191.55	104.47	2.834 CC, ES, SF	
4,900.00	4,676.00	4,669.13	4,676.00	20.28	87.25	17.572	-1,259.32	-1,026.69	296.68	192.17	104.51	2.839	
4,950.00	4,723.73	4,716.86	4,723.73	20.42	87.25	18.516	-1,259.32	-1,026.69	306.14	202.15	103.99	2.944	
5,000.00	4,770.75	4,763.88	4,770.75	20.54	87.25	19.509	-1,259.32	-1,026.69	326.02	222.89	103.12	3.161	
5,050.00	4,816.83	4,810.00	4,816.83	20.66	87.25	20.551	-1,259.32	-1,026.69	354.48	252.47	102.01	3.475	
5,100.00	4,861.74	4,855.00	4,861.74	20.76	87.25	21.642	-1,259.32	-1,026.69	389.53	288.75	100.79	3.865	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 167-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	4,656.00	4,662.88	20.86	87.25	122.054	-1,259.32	-1,026.69	429.42	329.77	99.65	4.309	
5,200.00	4,947.22	4,656.00	4,662.88	20.94	87.25	121.159	-1,259.32	-1,026.69	472.74	373.81	98.93	4.779	
5,250.00	4,987.37	4,656.00	4,662.88	21.01	87.25	118.003	-1,259.32	-1,026.69	518.47	419.37	99.10	5.232	
5,300.00	5,025.51	4,656.00	4,662.88	21.07	87.25	111.730	-1,259.32	-1,026.69	565.81	465.05	100.76	5.616	
5,350.00	5,061.48	4,656.00	4,662.88	21.13	87.25	100.858	-1,259.32	-1,026.69	614.19	510.17	104.03	5.904	
5,400.00	5,095.10	4,656.00	4,662.88	21.18	87.25	83.836	-1,259.32	-1,026.69	663.18	556.92	106.26	6.241	
5,450.00	5,126.19	4,656.00	4,662.88	21.21	87.25	62.026	-1,259.32	-1,026.69	712.44	611.86	100.58	7.083	
5,500.00	5,154.62	4,656.00	4,662.88	21.25	87.25	41.595	-1,259.32	-1,026.69	761.69	675.95	85.75	8.883	
5,550.00	5,180.35	4,656.00	4,662.88	21.27	87.25	30.422	-1,259.32	-1,026.69	810.75	736.77	73.98	10.960	
5,600.00	5,205.35	4,656.00	4,662.88	21.30	87.25	30.422	-1,259.32	-1,026.69	859.81	785.74	74.07	11.608	
5,650.00	5,230.35	4,656.00	4,662.88	21.33	87.25	30.422	-1,259.32	-1,026.69	908.98	834.81	74.17	12.255	
5,700.00	5,255.35	4,656.00	4,662.88	21.36	87.25	30.422	-1,259.32	-1,026.69	958.23	883.96	74.27	12.902	
5,750.00	5,280.20	4,656.00	4,662.88	21.40	87.25	26.525	-1,259.32	-1,026.69	1,007.53	938.12	69.41	14.516	
5,800.00	5,302.17	4,656.00	4,662.88	21.44	87.25	17.973	-1,259.32	-1,026.69	1,056.34	1,000.57	55.77	18.941	
5,850.00	5,320.15	4,656.00	4,662.88	21.48	87.25	13.418	-1,259.32	-1,026.69	1,104.27	1,059.14	45.13	24.468	
5,900.00	5,333.99	4,656.00	4,662.88	21.52	87.25	10.641	-1,259.32	-1,026.69	1,151.08	1,115.11	35.97	32.001	
5,950.00	5,343.59	4,656.00	4,662.88	21.56	87.25	8.791	-1,259.32	-1,026.69	1,196.57	1,168.55	28.02	42.702	
6,000.00	5,348.88	4,656.00	4,662.88	21.60	87.25	7.482	-1,259.32	-1,026.69	1,240.55	1,218.66	21.89	56.664	
6,050.00	5,350.00	4,656.00	4,662.88	21.64	87.25	6.762	-1,259.32	-1,026.69	1,282.96	1,263.20	19.76	64.921	
6,100.00	5,350.00	4,656.00	4,662.88	21.69	87.25	6.762	-1,259.32	-1,026.69	1,325.34	1,305.43	19.91	66.564	
6,150.00	5,350.00	4,656.00	4,662.88	21.77	87.25	6.762	-1,259.32	-1,026.69	1,368.23	1,348.17	20.07	68.189	
6,200.00	5,350.00	4,656.00	4,662.88	21.87	87.25	6.762	-1,259.32	-1,026.69	1,411.59	1,391.37	20.22	69.810	
6,250.00	5,350.00	4,656.00	4,662.88	21.99	87.25	6.762	-1,259.32	-1,026.69	1,455.38	1,435.00	20.38	71.407	
6,300.00	5,350.00	4,656.00	4,662.88	22.14	87.25	6.762	-1,259.32	-1,026.69	1,499.56	1,479.01	20.54	72.997	
6,350.00	5,350.00	4,656.00	4,662.88	22.32	87.25	6.762	-1,259.32	-1,026.69	1,544.09	1,523.38	20.71	74.559	
6,400.00	5,350.00	4,656.00	4,662.88	22.51	87.25	6.762	-1,259.32	-1,026.69	1,588.95	1,568.07	20.88	76.111	
6,450.00	5,350.00	4,656.00	4,662.88	22.74	87.25	6.762	-1,259.32	-1,026.69	1,634.10	1,613.05	21.05	77.634	
6,500.00	5,350.00	4,656.00	4,662.88	22.98	87.25	6.762	-1,259.32	-1,026.69	1,679.53	1,658.31	21.22	79.144	
6,550.00	5,350.00	4,656.00	4,662.88	23.24	87.25	6.762	-1,259.32	-1,026.69	1,725.21	1,703.82	21.40	80.625	
6,600.00	5,350.00	4,656.00	4,662.88	23.52	87.25	6.762	-1,259.32	-1,026.69	1,771.13	1,749.55	21.58	82.091	
6,650.00	5,350.00	4,656.00	4,662.88	23.81	87.25	6.762	-1,259.32	-1,026.69	1,817.26	1,795.50	21.76	83.529	
6,700.00	5,350.00	4,656.00	4,662.88	24.11	87.25	6.762	-1,259.32	-1,026.69	1,863.59	1,841.65	21.94	84.950	
6,750.00	5,350.00	4,656.00	4,662.88	24.43	87.25	6.762	-1,259.32	-1,026.69	1,910.11	1,887.99	22.12	86.343	
6,800.00	5,350.00	4,656.00	4,662.88	24.75	87.25	6.762	-1,259.32	-1,026.69	1,956.80	1,934.49	22.31	87.719	
6,850.00	5,350.00	4,656.00	4,662.88	25.09	87.25	6.762	-1,259.32	-1,026.69	2,003.64	1,981.15	22.50	89.068	
6,900.00	5,350.00	4,656.00	4,662.88	25.43	87.25	6.762	-1,259.32	-1,026.69	2,050.64	2,027.96	22.68	90.398	
6,950.00	5,350.00	4,656.00	4,662.88	25.79	87.25	6.762	-1,259.32	-1,026.69	2,097.78	2,074.90	22.88	91.702	
7,000.00	5,350.00	4,656.00	4,662.88	26.15	87.25	6.762	-1,259.32	-1,026.69	2,145.04	2,121.97	23.07	92.989	
7,050.00	5,350.00	4,656.00	4,662.88	26.52	87.25	6.762	-1,259.32	-1,026.69	2,192.43	2,169.16	23.26	94.249	
7,100.00	5,350.00	4,656.00	4,662.88	26.89	87.25	6.762	-1,259.32	-1,026.69	2,239.93	2,216.47	23.46	95.491	
7,150.00	5,350.00	4,656.00	4,662.88	27.28	87.25	6.762	-1,259.32	-1,026.69	2,287.53	2,263.88	23.65	96.709	
7,200.00	5,350.00	4,656.00	4,662.88	27.67	87.25	6.762	-1,259.32	-1,026.69	2,335.24	2,311.39	23.85	97.909	
7,250.00	5,350.00	4,656.00	4,662.88	28.07	87.25	6.762	-1,259.32	-1,026.69	2,383.04	2,358.99	24.05	99.085	
7,300.00	5,350.00	4,656.00	4,662.88	28.47	87.25	6.762	-1,259.32	-1,026.69	2,430.93	2,406.68	24.25	100.244	
7,350.00	5,350.00	4,656.00	4,662.88	28.88	87.25	6.762	-1,259.32	-1,026.69	2,478.90	2,454.45	24.45	101.380	
7,400.00	5,350.00	4,656.00	4,662.88	29.29	87.25	6.762	-1,259.32	-1,026.69	2,526.95	2,502.30	24.65	102.499	
7,450.00	5,350.00	4,656.00	4,662.88	29.71	87.25	6.762	-1,259.32	-1,026.69	2,575.08	2,550.22	24.86	103.596	
7,500.00	5,350.00	4,656.00	4,662.88	30.13	87.25	6.762	-1,259.32	-1,026.69	2,623.28	2,598.21	25.06	104.676	
7,550.00	5,350.00	4,656.00	4,662.88	30.56	87.25	6.762	-1,259.32	-1,026.69	2,671.54	2,646.27	25.27	105.736	
7,600.00	5,350.00	4,656.00	4,662.88	30.99	87.25	6.762	-1,259.32	-1,026.69	2,719.86	2,694.39	25.47	106.779	
7,650.00	5,350.00	4,656.00	4,662.88	31.43	87.25	6.762	-1,259.32	-1,026.69	2,768.25	2,742.57	25.68	107.803	
7,700.00	5,350.00	4,656.00	4,662.88	31.87	87.25	6.762	-1,259.32	-1,026.69	2,816.69	2,790.80	25.89	108.811	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #656 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 167-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	4,656.00	4,662.88	32.31	87.25	6.762	-1,259.32	-1,026.69	2,865.18	2,839.09	26.09	109.800	
7,800.00	5,350.00	4,656.00	4,662.88	32.76	87.25	6.762	-1,259.32	-1,026.69	2,913.73	2,887.42	26.30	110.774	
7,850.00	5,350.00	4,656.00	4,662.88	33.21	87.25	6.762	-1,259.32	-1,026.69	2,962.32	2,935.81	26.51	111.729	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	30.00	0.00	0.00	-171.394	-2,330.76	-352.75	2,357.49				
50.00	50.00	20.69	50.69	0.05	0.04	-171.394	-2,330.76	-352.74	2,357.30	2,357.21	0.09	N/A	
100.00	100.00	72.41	102.41	0.14	0.13	-171.395	-2,330.73	-352.69	2,357.27	2,356.99	0.27	8,627.772	
150.00	150.00	122.36	152.36	0.32	0.26	-171.397	-2,330.69	-352.59	2,357.21	2,356.63	0.58	4,068.878	
200.00	200.00	170.28	200.28	0.50	0.42	-171.397	-2,330.66	-352.59	2,357.18	2,356.25	0.92	2,549.333	
206.70	206.70	176.70	206.70	0.53	0.45	-171.397	-2,330.66	-352.60	2,357.18	2,356.21	0.97	2,427.886	
250.00	250.00	217.68	247.68	0.68	0.59	-171.394	-2,330.66	-352.71	2,357.20	2,355.93	1.27	1,858.414	
300.00	300.00	264.25	294.24	0.86	0.75	-171.391	-2,330.71	-352.88	2,357.28	2,355.67	1.61	1,464.460	
350.00	350.00	313.12	343.12	1.03	0.92	-28.091	-2,330.83	-353.08	2,357.05	2,355.09	1.96	1,204.330	
400.00	399.98	369.64	399.64	1.21	1.12	-28.113	-2,330.89	-353.32	2,355.97	2,353.63	2.34	1,007.854	
450.00	449.93	423.65	453.64	1.38	1.31	-28.153	-2,330.80	-353.54	2,354.00	2,351.29	2.71	868.531	
500.00	499.84	474.73	504.72	1.55	1.49	-28.211	-2,330.68	-353.69	2,351.22	2,348.14	3.07	765.165	
550.00	549.68	527.93	557.93	1.73	1.68	-28.290	-2,330.53	-353.80	2,347.63	2,344.18	3.45	681.172	
600.00	599.45	583.18	613.18	1.90	1.88	-28.391	-2,330.25	-353.87	2,343.17	2,339.35	3.83	612.574	
650.00	649.13	634.46	664.45	2.08	2.06	-28.508	-2,329.91	-353.92	2,337.87	2,333.68	4.19	557.762	
700.00	698.70	683.94	713.93	2.26	2.23	-28.640	-2,329.58	-353.98	2,331.80	2,327.25	4.55	512.542	
750.00	748.15	732.48	762.47	2.44	2.40	-28.790	-2,329.26	-354.00	2,324.98	2,320.08	4.90	474.222	
800.00	797.47	780.46	810.45	2.62	2.57	-28.963	-2,329.00	-353.82	2,317.44	2,312.19	5.25	441.347	
850.00	846.63	842.61	872.60	2.80	2.79	-29.197	-2,328.62	-353.23	2,309.09	2,303.45	5.65	408.995	
900.00	895.62	910.32	940.29	2.99	3.02	-29.488	-2,327.71	-351.98	2,299.57	2,293.52	6.05	379.803	
950.00	944.44	962.32	992.26	3.18	3.21	-29.761	-2,326.81	-350.84	2,289.12	2,282.70	6.41	356.915	
1,000.00	993.06	1,011.48	1,041.41	3.37	3.38	-30.048	-2,325.90	-349.73	2,277.88	2,271.12	6.76	337.084	
1,050.00	1,041.46	1,057.69	1,087.60	3.56	3.54	-30.347	-2,325.07	-348.69	2,265.95	2,258.86	7.09	319.562	
1,100.00	1,089.64	1,103.69	1,133.58	3.76	3.70	-30.667	-2,324.28	-347.64	2,253.36	2,245.93	7.42	303.558	
1,150.00	1,137.58	1,149.44	1,179.31	3.96	3.87	-31.009	-2,323.53	-346.59	2,240.10	2,232.35	7.75	288.999	
1,200.00	1,185.27	1,194.00	1,223.86	4.16	4.02	-31.367	-2,322.83	-345.61	2,226.19	2,218.12	8.07	275.739	
1,250.00	1,232.68	1,232.58	1,262.42	4.36	4.16	-31.717	-2,322.32	-344.82	2,211.73	2,203.35	8.37	264.088	
1,300.00	1,279.83	1,277.41	1,307.24	4.57	4.32	-32.059	-2,321.86	-344.00	2,196.78	2,188.09	8.70	252.570	
1,350.00	1,326.92	1,330.55	1,360.37	4.78	4.51	-32.341	-2,321.22	-343.19	2,181.67	2,172.61	9.06	240.935	
1,400.00	1,374.01	1,386.80	1,416.61	4.99	4.71	-32.636	-2,320.28	-342.57	2,166.38	2,156.96	9.43	229.815	
1,450.00	1,421.10	1,434.84	1,464.65	5.20	4.88	-32.888	-2,319.35	-342.17	2,151.04	2,141.26	9.77	220.107	
1,500.00	1,468.19	1,490.99	1,520.78	5.41	5.08	-33.185	-2,318.14	-341.77	2,135.62	2,125.47	10.15	210.461	
1,550.00	1,515.28	1,544.74	1,574.51	5.63	5.27	-33.467	-2,316.72	-341.64	2,120.05	2,109.53	10.52	201.619	
1,600.00	1,562.37	1,596.83	1,626.57	5.84	5.46	-33.722	-2,315.14	-342.26	2,104.37	2,093.49	10.88	193.460	
1,650.00	1,609.46	1,648.22	1,677.93	6.06	5.64	-33.974	-2,313.44	-343.03	2,088.62	2,077.38	11.24	185.845	
1,700.00	1,656.55	1,687.32	1,716.99	6.27	5.78	-34.166	-2,312.14	-343.68	2,072.90	2,061.35	11.56	179.338	
1,750.00	1,703.64	1,725.00	1,754.66	6.49	5.91	-34.352	-2,311.10	-344.38	2,057.47	2,045.60	11.87	173.263	
1,800.00	1,750.73	1,768.90	1,798.53	6.71	6.07	-34.569	-2,310.01	-345.28	2,042.22	2,030.00	12.21	167.222	
1,850.00	1,797.82	1,816.22	1,845.83	6.93	6.24	-34.803	-2,308.82	-346.35	2,026.99	2,014.42	12.56	161.348	
1,900.00	1,844.91	1,867.19	1,896.77	7.14	6.42	-35.061	-2,307.49	-347.44	2,011.74	1,998.81	12.93	155.612	
1,950.00	1,892.00	1,918.00	1,947.56	7.36	6.60	-35.331	-2,306.08	-348.24	1,996.43	1,983.13	13.29	150.177	
2,000.00	1,939.08	1,966.35	1,995.87	7.58	6.77	-35.596	-2,304.68	-348.88	1,981.09	1,967.44	13.65	145.103	
2,050.00	1,986.17	2,009.00	2,038.51	7.80	6.92	-35.831	-2,303.41	-349.46	1,965.76	1,951.77	13.99	140.476	
2,100.00	2,033.26	2,054.35	2,083.83	8.02	7.08	-36.082	-2,302.11	-350.22	1,950.54	1,936.19	14.34	135.990	
2,150.00	2,080.35	2,095.11	2,124.57	8.24	7.23	-36.303	-2,301.08	-351.13	1,935.50	1,920.83	14.68	131.865	
2,200.00	2,127.44	2,147.90	2,177.32	8.46	7.42	-36.589	-2,299.78	-352.46	1,920.54	1,905.49	15.06	127.568	
2,250.00	2,174.53	2,200.00	2,229.39	8.68	7.60	-36.880	-2,298.26	-353.67	1,905.40	1,889.97	15.43	123.478	
2,300.00	2,221.62	2,245.41	2,274.77	8.90	7.77	-37.140	-2,296.90	-354.64	1,890.26	1,874.48	15.79	119.749	
2,350.00	2,268.71	2,287.63	2,316.97	9.12	7.92	-37.388	-2,295.74	-355.45	1,875.28	1,859.15	16.13	116.267	
2,400.00	2,315.80	2,337.62	2,366.92	9.34	8.10	-37.689	-2,294.41	-356.31	1,860.38	1,843.87	16.50	112.742	
2,450.00	2,362.89	2,389.12	2,418.40	9.56	8.28	-38.009	-2,292.92	-357.07	1,845.40	1,828.52	16.88	109.327	
2,500.00	2,409.98	2,435.13	2,464.38	9.78	8.45	-38.302	-2,291.53	-357.67	1,830.42	1,813.18	17.24	106.172	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,550.00	2,457.07	2,481.04	2,510.27	10.00	8.61	-38.600	-2,290.18	-358.22	1,815.51	1,797.91	17.60	103.147	
2,600.00	2,504.16	2,527.53	2,556.74	10.22	8.78	-38.907	-2,288.82	-358.75	1,800.67	1,782.70	17.97	100.232	
2,650.00	2,551.25	2,574.09	2,603.28	10.44	8.95	-39.220	-2,287.46	-359.30	1,785.88	1,767.55	18.33	97.429	
2,700.00	2,598.34	2,622.87	2,652.03	10.67	9.12	-39.552	-2,286.02	-359.87	1,771.12	1,752.42	18.70	94.692	
2,750.00	2,645.42	2,671.86	2,700.99	10.89	9.30	-39.894	-2,284.51	-360.40	1,756.36	1,737.28	19.08	92.053	
2,800.00	2,692.51	2,715.90	2,745.02	11.11	9.46	-40.206	-2,283.16	-360.86	1,741.66	1,722.22	19.44	89.598	
2,850.00	2,739.60	2,759.77	2,788.86	11.33	9.62	-40.522	-2,281.89	-361.30	1,727.09	1,707.29	19.80	87.237	
2,900.00	2,786.69	2,803.68	2,832.75	11.55	9.78	-40.844	-2,280.68	-361.75	1,712.66	1,692.50	20.16	84.964	
2,950.00	2,833.78	2,847.63	2,876.69	11.77	9.93	-41.170	-2,279.55	-362.18	1,698.37	1,677.85	20.52	82.772	
3,000.00	2,880.87	2,894.20	2,923.24	12.00	10.10	-41.522	-2,278.41	-362.65	1,684.19	1,663.30	20.89	80.622	
3,050.00	2,927.96	2,942.28	2,971.31	12.22	10.27	-41.889	-2,277.21	-363.16	1,670.05	1,648.78	21.27	78.524	
3,100.00	2,975.05	2,990.26	3,019.26	12.44	10.45	-42.261	-2,275.97	-363.69	1,655.94	1,634.30	21.65	76.498	
3,150.00	3,022.14	3,038.17	3,067.16	12.66	10.62	-42.638	-2,274.71	-364.27	1,641.87	1,619.84	22.03	74.541	
3,200.00	3,069.23	3,085.73	3,114.70	12.89	10.79	-43.016	-2,273.44	-364.88	1,627.83	1,605.43	22.41	72.653	
3,250.00	3,116.32	3,133.14	3,162.08	13.11	10.96	-43.398	-2,272.15	-365.56	1,613.85	1,591.06	22.78	70.830	
3,300.00	3,163.41	3,178.73	3,207.65	13.33	11.13	-43.769	-2,270.92	-366.25	1,599.93	1,576.77	23.16	69.086	
3,350.00	3,210.50	3,223.42	3,252.32	13.55	11.29	-44.140	-2,269.76	-366.89	1,586.15	1,562.62	23.53	67.411	
3,400.00	3,257.59	3,271.23	3,300.11	13.78	11.46	-44.545	-2,268.56	-367.52	1,572.47	1,548.56	23.91	65.756	
3,450.00	3,304.68	3,321.38	3,350.24	14.00	11.64	-44.979	-2,267.21	-368.16	1,558.79	1,534.48	24.31	64.127	
3,500.00	3,351.76	3,368.08	3,396.92	14.22	11.81	-45.389	-2,265.89	-368.76	1,545.12	1,520.43	24.69	62.581	
3,550.00	3,398.85	3,413.12	3,441.94	14.44	11.97	-45.791	-2,264.66	-369.37	1,531.57	1,506.50	25.07	61.099	
3,600.00	3,445.94	3,454.74	3,483.54	14.67	12.12	-46.167	-2,263.60	-369.93	1,518.19	1,492.76	25.43	59.698	
3,650.00	3,493.03	3,493.69	3,522.48	14.89	12.26	-46.527	-2,262.78	-370.36	1,505.12	1,479.33	25.79	58.369	
3,700.00	3,540.12	3,533.72	3,562.50	15.11	12.40	-46.906	-2,262.14	-370.68	1,492.38	1,466.23	26.15	57.077	
3,750.00	3,587.21	3,581.10	3,609.87	15.34	12.57	-47.361	-2,261.47	-371.06	1,479.82	1,453.29	26.54	55.765	
3,800.00	3,634.30	3,629.32	3,658.09	15.56	12.75	-47.828	-2,260.79	-371.51	1,467.34	1,440.41	26.93	54.484	
3,850.00	3,681.39	3,685.15	3,713.91	15.78	12.95	-48.380	-2,259.78	-372.04	1,454.78	1,427.42	27.36	53.176	
3,900.00	3,728.48	3,736.70	3,765.44	16.01	13.13	-48.904	-2,258.56	-372.45	1,442.06	1,414.29	27.77	51.930	
3,950.00	3,775.57	3,782.37	3,811.09	16.23	13.30	-49.378	-2,257.45	-372.79	1,429.42	1,401.26	28.16	50.764	
4,000.00	3,822.66	3,828.71	3,857.42	16.45	13.46	-49.865	-2,256.37	-373.18	1,416.92	1,388.37	28.55	49.628	
4,050.00	3,869.75	3,876.79	3,905.47	16.67	13.64	-50.340	-2,255.41	-374.50	1,404.51	1,375.56	28.95	48.518	
4,100.00	3,916.84	3,930.93	3,959.53	16.90	13.83	-50.826	-2,254.53	-377.40	1,392.10	1,362.73	29.37	47.403	
4,150.00	3,963.93	3,994.54	4,022.92	17.12	14.06	-51.340	-2,253.25	-382.53	1,379.32	1,349.49	29.82	46.253	
4,200.00	4,011.02	4,098.98	4,126.44	17.34	14.44	-52.032	-2,249.39	-395.58	1,365.36	1,334.93	30.43	44.872	
4,250.00	4,058.10	4,147.09	4,173.85	17.57	14.62	-52.293	-2,246.95	-403.34	1,350.39	1,319.58	30.82	43.818	
4,300.00	4,105.19	4,195.08	4,221.07	17.79	14.80	-52.533	-2,244.62	-411.62	1,335.42	1,304.22	31.21	42.792	
4,350.00	4,152.28	4,240.06	4,265.29	18.01	14.97	-52.753	-2,242.53	-419.61	1,320.51	1,288.92	31.59	41.806	
4,400.00	4,199.37	4,287.00	4,311.44	18.24	15.15	-52.987	-2,240.43	-427.92	1,305.71	1,273.73	31.97	40.838	
4,450.00	4,246.46	4,334.73	4,358.33	18.46	15.34	-53.223	-2,238.34	-436.53	1,290.93	1,258.56	32.37	39.885	
4,500.00	4,293.55	4,384.55	4,407.23	18.68	15.54	-53.458	-2,236.16	-445.88	1,276.09	1,243.32	32.77	38.945	
4,550.00	4,340.64	4,433.84	4,455.53	18.91	15.73	-53.683	-2,233.99	-455.42	1,261.19	1,228.02	33.17	38.024	
4,600.00	4,387.73	4,483.08	4,503.75	19.13	15.93	-53.903	-2,231.82	-465.16	1,246.24	1,212.67	33.57	37.124	
4,650.00	4,434.91	4,531.99	4,551.63	19.35	16.13	-49.350	-2,229.62	-474.92	1,231.17	1,197.26	33.91	36.304	
4,700.00	4,482.67	4,580.36	4,598.97	19.57	16.33	-37.417	-2,227.38	-484.56	1,215.57	1,181.40	34.17	35.574	
4,750.00	4,530.89	4,626.25	4,643.89	19.77	16.52	-22.429	-2,225.28	-493.73	1,199.49	1,165.08	34.41	34.863	
4,800.00	4,579.34	4,671.67	4,688.33	19.95	16.71	-5.223	-2,223.28	-502.86	1,183.06	1,148.42	34.63	34.160	
4,850.00	4,627.79	4,715.96	4,731.67	20.12	16.89	12.120	-2,221.41	-511.84	1,166.42	1,131.56	34.86	33.458	
4,900.00	4,676.00	4,761.13	4,775.85	20.28	17.09	27.584	-2,219.55	-521.05	1,149.72	1,114.61	35.11	32.747	
4,950.00	4,723.73	4,768.00	4,782.57	20.42	17.11	39.601	-2,219.27	-522.45	1,133.73	1,098.49	35.24	32.174	
5,000.00	4,770.75	4,768.00	4,782.57	20.54	17.11	48.752	-2,219.27	-522.45	1,119.71	1,084.36	35.35	31.673	
5,050.00	4,816.83	4,768.00	4,782.57	20.66	17.11	55.736	-2,219.27	-522.45	1,107.83	1,072.35	35.47	31.229	
5,100.00	4,861.74	4,768.00	4,782.57	20.76	17.11	61.086	-2,219.27	-522.45	1,098.21	1,062.61	35.60	30.849	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	4,768.00	4,782.57	20.86	17.11	65.200	-2,219.27	-522.45	1,090.97	1,055.24	35.72	30.538	
5,200.00	4,947.22	4,768.00	4,782.57	20.94	17.11	68.357	-2,219.27	-522.45	1,086.18	1,050.33	35.85	30.300	
5,250.00	4,987.37	4,768.00	4,782.57	21.01	17.11	70.750	-2,219.27	-522.45	1,083.90	1,047.93	35.97	30.137	
5,269.90	5,002.79	4,768.00	4,782.57	21.04	17.11	71.522	-2,219.27	-522.45	1,083.70	1,047.69	36.01	30.094 CC, ES	
5,300.00	5,025.51	4,768.00	4,782.57	21.07	17.11	72.516	-2,219.27	-522.45	1,084.16	1,048.08	36.08	30.050	
5,350.00	5,061.48	4,768.00	4,782.57	21.13	17.11	73.751	-2,219.27	-522.45	1,086.95	1,050.77	36.19	30.038 SF	
5,400.00	5,095.10	4,768.00	4,782.57	21.18	17.11	74.525	-2,219.27	-522.45	1,092.25	1,055.96	36.29	30.102	
5,450.00	5,126.19	4,768.00	4,782.57	21.21	17.11	74.890	-2,219.27	-522.45	1,099.99	1,063.61	36.37	30.241	
5,500.00	5,154.62	4,768.00	4,782.57	21.25	17.11	74.887	-2,219.27	-522.45	1,110.07	1,073.63	36.45	30.457	
5,550.00	5,180.35	4,768.00	4,782.57	21.27	17.11	74.677	-2,219.27	-522.45	1,122.40	1,085.88	36.52	30.735	
5,600.00	5,205.35	4,768.00	4,782.57	21.30	17.11	74.677	-2,219.27	-522.45	1,136.81	1,100.19	36.63	31.036	
5,650.00	5,230.35	4,768.00	4,782.57	21.33	17.11	74.677	-2,219.27	-522.45	1,153.22	1,116.46	36.76	31.374	
5,700.00	5,255.35	4,768.00	4,782.57	21.36	17.11	74.677	-2,219.27	-522.45	1,171.53	1,134.64	36.88	31.762	
5,750.00	5,280.20	4,768.00	4,782.57	21.40	17.11	74.057	-2,219.27	-522.45	1,191.61	1,154.65	36.96	32.238	
5,800.00	5,302.17	4,768.00	4,782.57	21.44	17.11	71.846	-2,219.27	-522.45	1,212.60	1,175.77	36.83	32.923	
5,850.00	5,320.15	4,768.00	4,782.57	21.48	17.11	69.604	-2,219.27	-522.45	1,234.06	1,197.44	36.62	33.701	
5,900.00	5,333.99	4,768.00	4,782.57	21.52	17.11	67.360	-2,219.27	-522.45	1,255.78	1,219.45	36.33	34.564	
5,950.00	5,343.59	4,768.00	4,782.57	21.56	17.11	65.139	-2,219.27	-522.45	1,277.62	1,241.62	36.00	35.493	
6,000.00	5,348.88	4,768.00	4,782.57	21.60	17.11	62.965	-2,219.27	-522.45	1,299.38	1,263.74	35.64	36.463	
6,050.00	5,350.00	4,768.00	4,782.57	21.64	17.11	61.451	-2,219.27	-522.45	1,321.00	1,285.57	35.43	37.285	
6,100.00	5,350.00	4,768.00	4,782.57	21.69	17.11	61.451	-2,219.27	-522.45	1,343.67	1,308.07	35.60	37.744	
6,150.00	5,350.00	4,768.00	4,782.57	21.77	17.11	61.451	-2,219.27	-522.45	1,367.79	1,332.00	35.79	38.219	
6,200.00	5,350.00	4,768.00	4,782.57	21.87	17.11	61.451	-2,219.27	-522.45	1,393.29	1,357.31	35.98	38.728	
6,250.00	5,350.00	4,768.00	4,782.57	21.99	17.11	61.451	-2,219.27	-522.45	1,420.09	1,383.91	36.18	39.246	
6,300.00	5,350.00	4,768.00	4,782.57	22.14	17.11	61.451	-2,219.27	-522.45	1,448.12	1,411.73	36.39	39.791	
6,350.00	5,350.00	4,768.00	4,782.57	22.32	17.11	61.451	-2,219.27	-522.45	1,477.32	1,440.70	36.62	40.340	
6,400.00	5,350.00	4,768.00	4,782.57	22.51	17.11	61.451	-2,219.27	-522.45	1,507.61	1,470.76	36.85	40.913	
6,450.00	5,350.00	4,768.00	4,782.57	22.74	17.11	61.451	-2,219.27	-522.45	1,538.92	1,501.83	37.10	41.486	
6,500.00	5,350.00	4,768.00	4,782.57	22.98	17.11	61.451	-2,219.27	-522.45	1,571.20	1,533.86	37.34	42.077	
6,550.00	5,350.00	4,768.00	4,782.57	23.24	17.11	61.451	-2,219.27	-522.45	1,604.40	1,566.79	37.60	42.666	
6,600.00	5,350.00	4,768.00	4,782.57	23.52	17.11	61.451	-2,219.27	-522.45	1,638.44	1,600.58	37.87	43.269	
6,650.00	5,350.00	4,768.00	4,782.57	23.81	17.11	61.451	-2,219.27	-522.45	1,673.29	1,635.15	38.14	43.867	
6,700.00	5,350.00	4,768.00	4,782.57	24.11	17.11	61.451	-2,219.27	-522.45	1,708.89	1,670.47	38.42	44.475	
6,750.00	5,350.00	4,768.00	4,782.57	24.43	17.11	61.451	-2,219.27	-522.45	1,745.20	1,706.48	38.72	45.076	
6,800.00	5,350.00	4,768.00	4,782.57	24.75	17.11	61.451	-2,219.27	-522.45	1,782.17	1,743.16	39.01	45.685	
6,850.00	5,350.00	4,768.00	4,782.57	25.09	17.11	61.451	-2,219.27	-522.45	1,819.76	1,780.44	39.32	46.285	
6,900.00	5,350.00	4,768.00	4,782.57	25.43	17.11	61.451	-2,219.27	-522.45	1,857.94	1,818.31	39.62	46.890	
6,950.00	5,350.00	4,768.00	4,782.57	25.79	17.11	61.451	-2,219.27	-522.45	1,896.66	1,856.72	39.94	47.484	
7,000.00	5,350.00	4,768.00	4,782.57	26.15	17.11	61.451	-2,219.27	-522.45	1,935.91	1,895.65	40.26	48.082	
7,050.00	5,350.00	4,768.00	4,782.57	26.52	17.11	61.451	-2,219.27	-522.45	1,975.64	1,935.04	40.59	48.669	
7,100.00	5,350.00	4,768.00	4,782.57	26.89	17.11	61.451	-2,219.27	-522.45	2,015.82	1,974.90	40.92	49.257	
7,150.00	5,350.00	4,768.00	4,782.57	27.28	17.11	61.451	-2,219.27	-522.45	2,056.44	2,015.18	41.27	49.833	
7,200.00	5,350.00	4,768.00	4,782.57	27.67	17.11	61.451	-2,219.27	-522.45	2,097.47	2,055.86	41.61	50.409	
7,250.00	5,350.00	4,768.00	4,782.57	28.07	17.11	61.451	-2,219.27	-522.45	2,138.87	2,096.91	41.96	50.974	
7,300.00	5,350.00	4,768.00	4,782.57	28.47	17.11	61.451	-2,219.27	-522.45	2,180.64	2,138.32	42.31	51.536	
7,350.00	5,350.00	4,768.00	4,782.57	28.88	17.11	61.451	-2,219.27	-522.45	2,222.74	2,180.07	42.67	52.087	
7,400.00	5,350.00	4,768.00	4,782.57	29.29	17.11	61.451	-2,219.27	-522.45	2,265.17	2,222.13	43.04	52.635	
7,450.00	5,350.00	4,768.00	4,782.57	29.71	17.11	61.451	-2,219.27	-522.45	2,307.90	2,264.49	43.40	53.172	
7,500.00	5,350.00	4,768.00	4,782.57	30.13	17.11	61.451	-2,219.27	-522.45	2,350.91	2,307.14	43.77	53.705	
7,550.00	5,350.00	4,768.00	4,782.57	30.56	17.11	61.451	-2,219.27	-522.45	2,394.20	2,350.05	44.15	54.226	
7,600.00	5,350.00	4,768.00	4,782.57	30.99	17.11	61.451	-2,219.27	-522.45	2,437.75	2,393.22	44.53	54.743	
7,650.00	5,350.00	4,768.00	4,782.57	31.43	17.11	61.451	-2,219.27	-522.45	2,481.53	2,436.62	44.92	55.249	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,700.00	5,350.00	4,768.00	4,782.57	31.87	17.11	61.451	-2,219.27	-522.45	2,525.55	2,480.25	45.30	55.751	
7,750.00	5,350.00	4,768.00	4,782.57	32.31	17.11	61.451	-2,219.27	-522.45	2,569.79	2,524.10	45.69	56.241	
7,800.00	5,350.00	4,768.00	4,782.57	32.76	17.11	61.451	-2,219.27	-522.45	2,614.23	2,568.15	46.08	56.727	
7,850.00	5,350.00	4,768.00	4,782.57	33.21	17.11	61.451	-2,219.27	-522.45	2,658.88	2,612.39	46.48	57.202	
7,900.00	5,350.00	4,768.00	4,782.57	33.66	17.11	61.451	-2,219.27	-522.45	2,703.71	2,656.83	46.88	57.672	
7,950.00	5,350.00	4,768.00	4,782.57	34.12	17.11	61.451	-2,219.27	-522.45	2,748.72	2,701.43	47.28	58.131	
8,000.00	5,350.00	4,768.00	4,782.57	34.58	17.11	61.451	-2,219.27	-522.45	2,793.89	2,746.21	47.69	58.586	
8,050.00	5,350.00	4,768.00	4,782.57	35.05	17.11	61.451	-2,219.27	-522.45	2,839.23	2,791.14	48.10	59.030	
8,100.00	5,350.00	4,768.00	4,782.57	35.51	17.11	61.451	-2,219.27	-522.45	2,884.73	2,836.22	48.51	59.469	
8,150.00	5,350.00	4,768.00	4,782.57	35.98	17.11	61.451	-2,219.27	-522.45	2,930.37	2,881.45	48.92	59.898	
8,200.00	5,350.00	4,768.00	4,782.57	36.46	17.11	61.451	-2,219.27	-522.45	2,976.15	2,926.81	49.34	60.323	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,050.00	1,986.17	10,212.19	4,895.07	7.80	170.49	167.313	355.46	-170.44	2,992.20	2,836.41	155.79	19.207	
2,100.00	2,033.26	10,201.15	4,895.29	8.02	170.14	166.947	355.87	-181.47	2,949.93	2,793.82	156.11	18.896	
2,150.00	2,080.35	10,190.10	4,895.50	8.24	169.80	166.578	356.28	-192.52	2,907.88	2,751.45	156.43	18.589	
2,200.00	2,127.44	10,179.03	4,895.72	8.46	169.45	166.207	356.68	-203.57	2,866.03	2,709.30	156.74	18.285	
2,250.00	2,174.53	10,167.95	4,895.94	8.68	169.10	165.834	357.07	-214.65	2,824.42	2,667.37	157.05	17.985	
2,300.00	2,221.62	10,156.85	4,896.15	8.90	168.75	165.459	357.46	-225.74	2,783.03	2,625.69	157.35	17.687	
2,350.00	2,268.71	10,143.78	4,896.40	9.12	168.34	165.016	357.90	-238.80	2,741.89	2,584.23	157.66	17.391	
2,400.00	2,315.80	10,129.72	4,896.66	9.34	167.90	164.537	358.37	-252.84	2,701.00	2,543.02	157.98	17.097	
2,450.00	2,362.89	10,115.75	4,896.90	9.56	167.46	164.058	358.81	-266.80	2,660.36	2,502.07	158.28	16.808	
2,500.00	2,409.98	10,101.86	4,897.12	9.78	167.02	163.580	359.23	-280.68	2,619.98	2,461.41	158.58	16.522	
2,550.00	2,457.07	10,088.05	4,897.33	10.00	166.59	163.102	359.64	-294.49	2,579.89	2,421.03	158.86	16.240	
2,600.00	2,504.16	10,074.32	4,897.53	10.22	166.16	162.625	360.02	-308.21	2,540.10	2,380.96	159.14	15.962	
2,650.00	2,551.25	10,060.67	4,897.71	10.44	165.73	162.148	360.39	-321.86	2,500.61	2,341.21	159.40	15.688	
2,700.00	2,598.34	10,048.81	4,897.86	10.67	165.36	161.733	360.69	-333.71	2,461.46	2,301.81	159.65	15.418	
2,750.00	2,645.42	10,037.38	4,898.00	10.89	165.00	161.331	360.98	-345.14	2,422.65	2,262.77	159.88	15.152	
2,800.00	2,692.51	10,025.96	4,898.13	11.11	164.64	160.928	361.26	-356.55	2,384.21	2,224.10	160.12	14.891	
2,850.00	2,739.60	10,014.55	4,898.27	11.33	164.28	160.524	361.53	-367.96	2,346.16	2,185.82	160.34	14.632	
2,900.00	2,786.69	10,003.15	4,898.40	11.55	163.92	160.118	361.80	-379.36	2,308.51	2,147.96	160.56	14.378	
2,950.00	2,833.78	9,991.75	4,898.53	11.77	163.57	159.712	362.06	-390.76	2,271.29	2,110.53	160.77	14.128	
3,000.00	2,880.87	9,980.37	4,898.65	12.00	163.21	159.305	362.31	-402.13	2,234.52	2,073.55	160.97	13.882	
3,050.00	2,927.96	9,969.01	4,898.77	12.22	162.85	158.897	362.55	-413.49	2,198.21	2,037.05	161.16	13.640	
3,100.00	2,975.05	9,964.00	4,898.83	12.44	162.69	158.717	362.65	-418.49	2,162.40	2,001.05	161.35	13.402	
3,150.00	3,022.14	9,950.60	4,898.97	12.66	162.27	158.234	362.94	-431.89	2,127.12	1,965.58	161.54	13.168	
3,200.00	3,069.23	9,941.96	4,899.07	12.89	162.00	157.921	363.12	-440.53	2,092.39	1,930.67	161.72	12.939	
3,250.00	3,116.32	9,933.28	4,899.18	13.11	161.73	157.607	363.32	-449.20	2,058.25	1,896.36	161.89	12.714	
3,300.00	3,163.41	9,924.56	4,899.30	13.33	161.46	157.290	363.52	-457.92	2,024.73	1,862.66	162.06	12.493	
3,350.00	3,210.50	9,915.81	4,899.41	13.55	161.18	156.971	363.72	-466.67	1,991.85	1,829.62	162.23	12.278	
3,400.00	3,257.59	9,907.02	4,899.54	13.78	160.90	156.650	363.93	-475.46	1,959.65	1,797.25	162.39	12.067	
3,450.00	3,304.68	9,898.19	4,899.67	14.00	160.63	156.328	364.15	-484.28	1,928.16	1,765.61	162.55	11.862	
3,500.00	3,351.76	9,889.32	4,899.81	14.22	160.35	156.003	364.37	-493.15	1,897.41	1,734.71	162.70	11.662	
3,550.00	3,398.85	9,880.41	4,899.95	14.44	160.07	155.676	364.59	-502.05	1,867.45	1,704.60	162.85	11.467	
3,600.00	3,445.94	9,869.00	4,900.14	14.67	159.71	155.256	364.89	-513.46	1,838.32	1,675.33	162.98	11.279	
3,650.00	3,493.03	9,861.56	4,900.27	14.89	159.48	154.982	365.09	-520.90	1,810.03	1,646.90	163.13	11.096	
3,700.00	3,540.12	9,851.24	4,900.46	15.11	159.15	154.601	365.35	-531.21	1,782.65	1,619.39	163.26	10.919	
3,750.00	3,587.21	9,840.86	4,900.65	15.34	158.83	154.218	365.61	-541.58	1,756.19	1,592.82	163.37	10.750	
3,800.00	3,634.30	9,830.41	4,900.85	15.56	158.50	153.831	365.87	-552.03	1,730.72	1,567.23	163.48	10.586	
3,850.00	3,681.39	9,819.90	4,901.06	15.78	158.17	153.441	366.13	-562.54	1,706.26	1,542.67	163.59	10.430	
3,900.00	3,728.48	9,809.31	4,901.28	16.01	157.84	153.048	366.38	-573.12	1,682.87	1,519.18	163.68	10.281	
3,950.00	3,775.57	9,798.66	4,901.50	16.23	157.50	152.652	366.62	-583.77	1,660.58	1,496.81	163.77	10.140	
4,000.00	3,822.66	9,787.93	4,901.73	16.45	157.17	152.253	366.87	-594.49	1,639.45	1,475.60	163.85	10.006	
4,050.00	3,869.75	9,777.14	4,901.97	16.67	156.83	151.850	367.11	-605.27	1,619.52	1,455.59	163.93	9.879	
4,100.00	3,916.84	9,760.30	4,902.32	16.90	156.30	151.222	367.46	-622.11	1,600.80	1,436.89	163.92	9.766	
4,150.00	3,963.93	9,742.51	4,902.62	17.12	155.74	150.556	367.79	-639.89	1,583.33	1,419.45	163.88	9.661	
4,200.00	4,011.02	9,725.29	4,902.83	17.34	155.20	149.910	368.07	-657.11	1,567.14	1,403.31	163.83	9.565	
4,250.00	4,058.10	9,708.60	4,902.97	17.57	154.68	149.283	368.31	-673.79	1,552.28	1,388.51	163.77	9.478	
4,300.00	4,105.19	9,692.43	4,903.04	17.79	154.17	148.674	368.50	-689.97	1,538.80	1,375.09	163.71	9.400	
4,350.00	4,152.28	9,680.00	4,903.05	18.01	153.78	148.206	368.62	-702.39	1,526.73	1,363.04	163.69	9.327	
4,400.00	4,199.37	9,670.14	4,903.05	18.24	153.47	147.834	368.71	-712.25	1,516.14	1,352.43	163.71	9.261	
4,450.00	4,246.46	9,661.89	4,903.07	18.46	153.21	147.522	368.80	-720.50	1,507.08	1,343.33	163.75	9.203	
4,500.00	4,293.55	9,653.54	4,903.09	18.68	152.95	147.207	368.89	-728.85	1,499.58	1,335.79	163.79	9.156	
4,550.00	4,340.64	9,645.09	4,903.13	18.91	152.68	146.888	368.98	-737.30	1,493.67	1,329.85	163.82	9.118	
4,600.00	4,387.73	9,636.54	4,903.18	19.13	152.42	146.565	369.08	-745.85	1,489.35	1,325.50	163.85	9.090	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,650.00	4,434.91	9,628.21	4,903.24	19.35	152.15	150.316	369.18	-754.18	1,486.57	1,322.46	164.11	9.058	
4,700.00	4,482.67	9,622.29	4,903.30	19.57	151.97	160.655	369.26	-760.10	1,484.93	1,320.30	164.63	9.020	
4,749.21	4,530.13	9,619.26	4,903.32	19.76	151.87	173.790	369.30	-763.13	1,484.39	1,319.25	165.14	8.989	CC
4,750.00	4,530.89	9,619.23	4,903.32	19.77	151.87	174.021	369.30	-763.16	1,484.39	1,319.24	165.15	8.988	ES
4,800.00	4,579.34	9,619.11	4,903.33	19.95	151.87	-170.403	369.30	-763.28	1,484.97	1,319.27	165.70	8.962	
4,850.00	4,627.79	9,621.99	4,903.30	20.12	151.96	-154.685	369.26	-760.40	1,486.67	1,320.36	166.32	8.939	
4,900.00	4,676.00	9,627.91	4,903.25	20.28	152.15	-140.849	369.19	-754.48	1,489.47	1,322.46	167.01	8.919	
4,950.00	4,723.73	9,636.89	4,903.18	20.42	152.43	-129.659	369.08	-745.50	1,493.29	1,325.50	167.79	8.900	
5,000.00	4,770.75	9,648.97	4,903.11	20.54	152.81	-120.855	368.94	-733.42	1,498.05	1,329.40	168.65	8.883	
5,050.00	4,816.83	9,664.12	4,903.06	20.66	153.28	-113.861	368.77	-718.27	1,503.64	1,334.05	169.59	8.866	
5,100.00	4,861.74	9,683.31	4,903.05	20.76	153.88	-108.131	368.59	-699.08	1,509.92	1,339.29	170.63	8.849	
5,150.00	4,905.28	9,712.72	4,902.94	20.86	154.81	-103.085	368.25	-669.68	1,516.65	1,344.75	171.90	8.823	
5,200.00	4,947.22	9,745.12	4,902.58	20.94	155.82	-98.723	367.75	-637.28	1,523.61	1,350.43	173.17	8.798	
5,250.00	4,987.37	9,779.69	4,901.91	21.01	156.91	-94.904	367.05	-602.72	1,530.58	1,356.18	174.40	8.776	
5,300.00	5,025.51	9,813.61	4,901.19	21.07	157.97	-91.604	366.28	-568.82	1,537.40	1,361.91	175.50	8.760	
5,350.00	5,061.48	9,850.50	4,900.47	21.13	159.13	-88.644	365.37	-531.95	1,543.91	1,367.35	176.56	8.744	
5,400.00	5,095.10	9,887.02	4,899.85	21.18	160.28	-86.068	364.43	-495.45	1,549.91	1,372.41	177.51	8.732	
5,450.00	5,126.19	9,922.98	4,899.32	21.21	161.41	-83.840	363.55	-459.50	1,555.31	1,376.96	178.34	8.721	
5,500.00	5,154.62	9,964.00	4,898.83	21.25	162.69	-81.814	362.65	-418.49	1,559.95	1,380.74	179.21	8.705	
5,550.00	5,180.35	10,006.66	4,898.36	21.27	164.03	-80.304	361.72	-375.85	1,563.66	1,383.57	180.08	8.683	
5,600.00	5,205.35	10,053.40	4,897.80	21.30	165.50	-79.435	360.58	-329.13	1,567.29	1,386.18	181.12	8.654	
5,650.00	5,230.35	10,101.59	4,897.13	21.33	167.02	-78.537	359.24	-280.96	1,571.22	1,389.07	182.15	8.626	
5,700.00	5,255.35	10,149.75	4,896.29	21.36	168.53	-77.638	357.70	-232.83	1,575.40	1,392.27	183.13	8.603	
5,750.00	5,280.20	10,196.69	4,895.38	21.40	170.00	-76.644	356.03	-185.93	1,579.83	1,395.87	183.96	8.588	
5,800.00	5,302.17	10,243.94	4,894.45	21.44	171.49	-75.482	354.24	-138.72	1,583.77	1,399.19	184.58	8.580	
5,850.00	5,320.15	10,290.00	4,893.54	21.48	172.94	-74.556	352.45	-92.70	1,586.86	1,401.55	185.32	8.563	SF
5,900.00	5,333.99	10,290.00	4,893.54	21.52	172.94	-74.283	352.45	-92.70	1,589.70	1,404.47	185.23	8.582	
5,950.00	5,343.59	10,290.00	4,893.54	21.56	172.94	-73.972	352.45	-92.70	1,592.92	1,407.80	185.12	8.605	
6,000.00	5,348.88	10,290.00	4,893.54	21.60	172.94	-73.628	352.45	-92.70	1,596.50	1,411.52	184.98	8.631	
6,050.00	5,350.00	10,290.00	4,893.54	21.64	172.94	-73.362	352.45	-92.70	1,600.46	1,415.54	184.92	8.655	
6,100.00	5,350.00	10,290.00	4,893.54	21.69	172.94	-73.362	352.45	-92.70	1,605.65	1,420.57	185.09	8.675	
6,150.00	5,350.00	10,290.00	4,893.54	21.77	172.94	-73.362	352.45	-92.70	1,612.38	1,427.10	185.28	8.703	
6,200.00	5,350.00	10,290.00	4,893.54	21.87	172.94	-73.362	352.45	-92.70	1,620.62	1,435.15	185.47	8.738	
6,250.00	5,350.00	10,290.00	4,893.54	21.99	172.94	-73.362	352.45	-92.70	1,630.36	1,444.67	185.69	8.780	
6,300.00	5,350.00	10,290.00	4,893.54	22.14	172.94	-73.362	352.45	-92.70	1,641.56	1,455.65	185.91	8.830	
6,350.00	5,350.00	10,290.00	4,893.54	22.32	172.94	-73.362	352.45	-92.70	1,654.20	1,468.05	186.15	8.886	
6,400.00	5,350.00	10,290.00	4,893.54	22.51	172.94	-73.362	352.45	-92.70	1,668.24	1,481.84	186.39	8.950	
6,450.00	5,350.00	10,290.00	4,893.54	22.74	172.94	-73.362	352.45	-92.70	1,683.65	1,496.99	186.66	9.020	
6,500.00	5,350.00	10,290.00	4,893.54	22.98	172.94	-73.362	352.45	-92.70	1,700.39	1,513.46	186.93	9.097	
6,550.00	5,350.00	10,290.00	4,893.54	23.24	172.94	-73.362	352.45	-92.70	1,718.42	1,531.21	187.21	9.179	
6,600.00	5,350.00	10,290.00	4,893.54	23.52	172.94	-73.362	352.45	-92.70	1,737.70	1,550.20	187.50	9.268	
6,650.00	5,350.00	10,290.00	4,893.54	23.81	172.94	-73.362	352.45	-92.70	1,758.20	1,570.39	187.81	9.362	
6,700.00	5,350.00	10,290.00	4,893.54	24.11	172.94	-73.362	352.45	-92.70	1,779.86	1,591.75	188.11	9.462	
6,750.00	5,350.00	10,290.00	4,893.54	24.43	172.94	-73.362	352.45	-92.70	1,802.65	1,614.21	188.44	9.566	
6,800.00	5,350.00	10,290.00	4,893.54	24.75	172.94	-73.362	352.45	-92.70	1,826.53	1,637.76	188.76	9.676	
6,850.00	5,350.00	10,290.00	4,893.54	25.09	172.94	-73.362	352.45	-92.70	1,851.45	1,662.34	189.11	9.791	
6,900.00	5,350.00	10,290.00	4,893.54	25.43	172.94	-73.362	352.45	-92.70	1,877.37	1,687.92	189.45	9.910	
6,950.00	5,350.00	10,290.00	4,893.54	25.79	172.94	-73.362	352.45	-92.70	1,904.25	1,714.44	189.80	10.033	
7,000.00	5,350.00	10,290.00	4,893.54	26.15	172.94	-73.362	352.45	-92.70	1,932.05	1,741.89	190.16	10.160	
7,050.00	5,350.00	10,290.00	4,893.54	26.52	172.94	-73.362	352.45	-92.70	1,960.73	1,770.20	190.53	10.291	
7,100.00	5,350.00	10,290.00	4,893.54	26.89	172.94	-73.362	352.45	-92.70	1,990.25	1,799.35	190.90	10.426	
7,150.00	5,350.00	10,290.00	4,893.54	27.28	172.94	-73.362	352.45	-92.70	2,020.58	1,829.30	191.28	10.563	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,200.00	5,350.00	10,290.00	4,893.54	27.67	172.94	-73.362	352.45	-92.70	2,051.68	1,860.01	191.67	10.704	
7,250.00	5,350.00	10,290.00	4,893.54	28.07	172.94	-73.362	352.45	-92.70	2,083.52	1,891.46	192.06	10.848	
7,300.00	5,350.00	10,290.00	4,893.54	28.47	172.94	-73.362	352.45	-92.70	2,116.06	1,923.60	192.46	10.995	
7,350.00	5,350.00	10,290.00	4,893.54	28.88	172.94	-73.362	352.45	-92.70	2,149.27	1,956.40	192.86	11.144	
7,400.00	5,350.00	10,290.00	4,893.54	29.29	172.94	-73.362	352.45	-92.70	2,183.12	1,989.85	193.27	11.296	
7,450.00	5,350.00	10,290.00	4,893.54	29.71	172.94	-73.362	352.45	-92.70	2,217.58	2,023.89	193.68	11.450	
7,500.00	5,350.00	10,290.00	4,893.54	30.13	172.94	-73.362	352.45	-92.70	2,252.62	2,058.52	194.10	11.606	
7,550.00	5,350.00	10,290.00	4,893.54	30.56	172.94	-73.362	352.45	-92.70	2,288.22	2,093.70	194.52	11.763	
7,600.00	5,350.00	10,290.00	4,893.54	30.99	172.94	-73.362	352.45	-92.70	2,324.35	2,129.41	194.94	11.923	
7,650.00	5,350.00	10,290.00	4,893.54	31.43	172.94	-73.362	352.45	-92.70	2,360.98	2,165.61	195.37	12.084	
7,700.00	5,350.00	10,290.00	4,893.54	31.87	172.94	-73.362	352.45	-92.70	2,398.10	2,202.30	195.80	12.247	
7,750.00	5,350.00	10,290.00	4,893.54	32.31	172.94	-73.362	352.45	-92.70	2,435.68	2,239.44	196.24	12.412	
7,800.00	5,350.00	10,290.00	4,893.54	32.76	172.94	-73.362	352.45	-92.70	2,473.70	2,277.02	196.68	12.577	
7,850.00	5,350.00	10,290.00	4,893.54	33.21	172.94	-73.362	352.45	-92.70	2,512.14	2,315.01	197.13	12.744	
7,900.00	5,350.00	10,290.00	4,893.54	33.66	172.94	-73.362	352.45	-92.70	2,550.98	2,353.40	197.57	12.912	
7,950.00	5,350.00	10,290.00	4,893.54	34.12	172.94	-73.362	352.45	-92.70	2,590.20	2,392.18	198.02	13.080	
8,000.00	5,350.00	10,290.00	4,893.54	34.58	172.94	-73.362	352.45	-92.70	2,629.79	2,431.31	198.48	13.250	
8,050.00	5,350.00	10,290.00	4,893.54	35.05	172.94	-73.362	352.45	-92.70	2,669.73	2,470.79	198.93	13.420	
8,100.00	5,350.00	10,290.00	4,893.54	35.51	172.94	-73.362	352.45	-92.70	2,710.00	2,510.61	199.39	13.591	
8,150.00	5,350.00	10,290.00	4,893.54	35.98	172.94	-73.362	352.45	-92.70	2,750.59	2,550.74	199.85	13.763	
8,200.00	5,350.00	10,290.00	4,893.54	36.46	172.94	-73.362	352.45	-92.70	2,791.48	2,591.17	200.31	13.936	
8,250.00	5,350.00	10,290.00	4,893.54	36.93	172.94	-73.362	352.45	-92.70	2,832.67	2,631.89	200.78	14.108	
8,300.00	5,350.00	10,290.00	4,893.54	37.41	172.94	-73.362	352.45	-92.70	2,874.14	2,672.89	201.25	14.282	
8,350.00	5,350.00	10,290.00	4,893.54	37.89	172.94	-73.362	352.45	-92.70	2,915.88	2,714.16	201.72	14.455	
8,400.00	5,350.00	10,290.00	4,893.54	38.37	172.94	-73.362	352.45	-92.70	2,957.87	2,755.68	202.19	14.629	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,050.00	1,986.17	10,177.42	4,898.01	7.80	169.52	-145.077	-942.08	-236.66	2,973.35	2,914.04	59.31	50.130	
2,100.00	2,033.26	10,171.25	4,898.07	8.02	169.33	-145.267	-942.01	-242.83	2,924.58	2,864.65	59.92	48.804	
2,150.00	2,080.35	10,150.00	4,898.32	8.24	168.66	-145.946	-941.80	-264.08	2,875.89	2,814.28	61.61	46.680	
2,200.00	2,127.44	10,150.00	4,898.32	8.46	168.66	-145.946	-941.80	-264.08	2,827.11	2,765.31	61.80	45.743	
2,250.00	2,174.53	10,150.00	4,898.32	8.68	168.66	-145.946	-941.80	-264.08	2,778.38	2,716.38	62.00	44.812	
2,300.00	2,221.62	10,140.66	4,898.45	8.90	168.37	-146.257	-941.72	-273.42	2,729.68	2,666.80	62.88	43.411	
2,350.00	2,268.71	10,126.56	4,898.62	9.12	167.93	-146.740	-941.64	-287.52	2,680.97	2,616.84	64.14	41.802	
2,400.00	2,315.80	10,112.60	4,898.76	9.34	167.49	-147.235	-941.58	-301.47	2,632.26	2,566.85	65.41	40.240	
2,450.00	2,362.89	10,098.79	4,898.88	9.56	167.05	-147.743	-941.56	-315.29	2,583.55	2,516.83	66.72	38.722	
2,500.00	2,409.98	10,085.11	4,898.97	9.78	166.63	-148.264	-941.57	-328.96	2,534.82	2,466.77	68.05	37.248	
2,550.00	2,457.07	10,071.57	4,899.03	10.00	166.20	-148.800	-941.61	-342.51	2,486.09	2,416.68	69.41	35.816	
2,600.00	2,504.16	10,058.16	4,899.08	10.22	165.78	-149.351	-941.69	-355.91	2,437.36	2,366.56	70.80	34.426	
2,650.00	2,551.25	10,046.37	4,899.10	10.44	165.41	-149.853	-941.77	-367.70	2,388.62	2,316.53	72.08	33.137	
2,700.00	2,598.34	10,035.10	4,899.11	10.67	165.06	-150.352	-941.85	-378.97	2,339.88	2,266.53	73.35	31.898	
2,750.00	2,645.42	10,023.87	4,899.12	10.89	164.70	-150.867	-941.94	-390.20	2,291.15	2,216.49	74.66	30.688	
2,800.00	2,692.51	10,012.73	4,899.12	11.11	164.35	-151.398	-942.04	-401.34	2,242.43	2,166.43	75.99	29.508	
2,850.00	2,739.60	10,001.64	4,899.12	11.33	164.01	-151.947	-942.13	-412.43	2,193.71	2,116.34	77.36	28.356	
2,900.00	2,786.69	9,990.59	4,899.11	11.55	163.66	-152.515	-942.23	-423.48	2,145.00	2,066.23	78.77	27.231	
2,950.00	2,833.78	9,979.58	4,899.10	11.77	163.31	-153.104	-942.34	-434.49	2,096.29	2,016.08	80.21	26.134	
3,000.00	2,880.87	9,968.60	4,899.08	12.00	162.97	-153.714	-942.44	-445.46	2,047.59	1,965.90	81.70	25.063	
3,050.00	2,927.96	9,957.54	4,899.05	12.22	162.62	-154.354	-942.56	-456.53	1,998.91	1,915.67	83.24	24.014	
3,100.00	2,975.05	9,946.06	4,899.01	12.44	162.26	-155.047	-942.68	-468.01	1,950.23	1,865.34	84.88	22.975	
3,150.00	3,022.14	9,934.65	4,898.97	12.66	161.91	-155.766	-942.81	-479.42	1,901.56	1,814.98	86.57	21.965	
3,200.00	3,069.23	9,923.31	4,898.92	12.89	161.55	-156.512	-942.94	-490.76	1,852.89	1,764.59	88.31	20.983	
3,250.00	3,116.32	9,912.04	4,898.86	13.11	161.20	-157.285	-943.08	-502.02	1,804.24	1,714.16	90.09	20.028	
3,300.00	3,163.41	9,900.84	4,898.79	13.33	160.85	-158.089	-943.22	-513.22	1,755.60	1,663.69	91.91	19.100	
3,350.00	3,210.50	9,889.72	4,898.71	13.55	160.50	-158.924	-943.36	-524.34	1,706.98	1,613.18	93.79	18.199	
3,400.00	3,257.59	9,878.66	4,898.62	13.78	160.15	-159.791	-943.51	-535.40	1,658.37	1,562.65	95.72	17.325	
3,450.00	3,304.68	9,867.67	4,898.53	14.00	159.81	-160.693	-943.67	-546.38	1,609.78	1,512.08	97.70	16.477	
3,500.00	3,351.76	9,857.79	4,898.43	14.22	159.50	-161.541	-943.82	-556.27	1,561.21	1,461.65	99.56	15.682	
3,550.00	3,398.85	9,848.21	4,898.35	14.44	159.20	-162.395	-943.97	-565.85	1,512.67	1,411.26	101.41	14.917	
3,600.00	3,445.94	9,838.60	4,898.26	14.67	158.90	-163.287	-944.13	-575.45	1,464.16	1,360.85	103.31	14.172	
3,650.00	3,493.03	9,828.97	4,898.17	14.89	158.59	-164.219	-944.31	-585.09	1,415.70	1,310.42	105.27	13.448	
3,700.00	3,540.12	9,819.29	4,898.08	15.11	158.29	-165.193	-944.50	-594.75	1,367.27	1,259.98	107.29	12.744	
3,750.00	3,587.21	9,809.59	4,897.99	15.34	157.99	-166.211	-944.71	-604.45	1,318.89	1,209.52	109.37	12.059	
3,800.00	3,634.30	9,799.86	4,897.90	15.56	157.68	-167.277	-944.92	-614.19	1,270.55	1,159.06	111.50	11.395	
3,850.00	3,681.39	9,790.09	4,897.81	15.78	157.38	-168.394	-945.15	-623.95	1,222.28	1,108.59	113.69	10.751	
3,900.00	3,728.48	9,780.29	4,897.72	16.01	157.07	-169.563	-945.39	-633.74	1,174.06	1,058.13	115.94	10.127	
3,950.00	3,775.57	9,770.00	4,897.62	16.23	156.75	-170.847	-945.66	-644.03	1,125.92	1,007.57	118.34	9.514	
4,000.00	3,822.66	9,770.00	4,897.62	16.45	156.75	-170.847	-945.66	-644.03	1,077.89	959.36	118.53	9.094	
4,050.00	3,869.75	9,754.97	4,897.52	16.67	156.28	-172.839	-946.01	-659.06	1,029.91	907.85	122.06	8.438	
4,100.00	3,916.84	9,747.11	4,897.49	16.90	156.03	-173.942	-946.16	-666.92	982.08	858.03	124.05	7.917	
4,150.00	3,963.93	9,739.13	4,897.48	17.12	155.78	-175.106	-946.29	-674.90	934.40	808.30	126.10	7.410	
4,200.00	4,011.02	9,731.03	4,897.50	17.34	155.53	-176.335	-946.40	-683.00	886.87	758.67	128.20	6.918	
4,250.00	4,058.10	9,722.80	4,897.53	17.57	155.27	-177.631	-946.48	-691.22	839.54	709.18	130.36	6.440	
4,300.00	4,105.19	9,714.46	4,897.59	17.79	155.01	-178.999	-946.53	-699.57	792.42	659.85	132.57	5.977	
4,350.00	4,152.28	9,705.98	4,897.67	18.01	154.74	-179.558	-946.56	-708.04	745.56	610.74	134.82	5.530	
4,400.00	4,199.37	9,697.37	4,897.77	18.24	154.47	-178.035	-946.56	-716.65	699.01	561.89	137.12	5.098	
4,450.00	4,246.46	9,688.64	4,897.90	18.46	154.20	-176.431	-946.53	-725.39	652.82	513.39	139.44	4.682	
4,500.00	4,293.55	9,676.00	4,898.13	18.68	153.80	-174.005	-946.44	-738.02	607.10	464.43	142.68	4.255	
4,550.00	4,340.64	9,669.34	4,898.26	18.91	153.59	-172.679	-946.37	-744.68	561.90	417.46	144.44	3.890	
4,600.00	4,387.73	9,657.92	4,898.48	19.13	153.24	-170.333	-946.27	-756.09	517.36	370.09	147.27	3.513	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,650.00	4,434.91	9,646.97	4,898.68	19.35	152.89	169.173	-946.19	-767.04	473.55	319.90	153.65	3.082	
4,700.00	4,482.67	9,639.15	4,898.81	19.57	152.65	171.597	-946.14	-774.86	430.14	268.85	161.29	2.667	
4,750.00	4,530.89	9,634.95	4,898.88	19.77	152.51	177.775	-946.11	-779.06	387.53	222.31	165.22	2.346	
4,800.00	4,579.34	9,634.37	4,898.89	19.95	152.50	-172.556	-946.11	-779.65	346.41	180.02	166.39	2.082	
4,850.00	4,627.79	9,637.36	4,898.84	20.12	152.59	-161.164	-946.12	-776.65	307.62	141.43	166.19	1.851	
4,900.00	4,676.00	9,643.89	4,898.73	20.28	152.80	-149.983	-946.17	-770.12	272.28	106.43	165.85	1.642	
4,950.00	4,723.73	9,653.89	4,898.55	20.42	153.11	-139.781	-946.24	-760.12	241.83	75.67	166.16	1.455 Level 3	
5,000.00	4,770.75	9,667.28	4,898.30	20.54	153.53	-130.329	-946.35	-746.73	218.05	50.66	167.39	1.303 Level 3	
5,050.00	4,816.83	9,683.08	4,898.00	20.66	154.02	-121.342	-946.50	-730.94	202.79	33.55	169.24	1.198 Level 2	
5,100.00	4,861.74	9,701.06	4,897.73	20.76	154.59	-112.424	-946.56	-712.97	197.44	26.24	171.19	1.153 Level 2	
5,101.36	4,862.95	9,701.59	4,897.72	20.77	154.60	-112.176	-946.56	-712.43	197.43	26.19	171.24	1.153 Level 2, CC, ES, SF	
5,150.00	4,905.28	9,722.29	4,897.54	20.86	155.25	-103.093	-946.48	-691.74	201.94	29.44	172.50	1.171 Level 2	
5,200.00	4,947.22	9,746.75	4,897.49	20.94	156.02	-93.459	-946.17	-667.28	214.68	42.55	172.13	1.247 Level 2	
5,250.00	4,987.37	9,774.78	4,897.67	21.01	156.90	-83.821	-945.53	-639.26	233.26	63.88	169.39	1.377 Level 3	
5,300.00	5,025.51	9,807.85	4,897.97	21.07	157.93	-74.377	-944.74	-606.20	255.17	91.16	164.01	1.556	
5,350.00	5,061.48	9,843.59	4,898.30	21.13	159.05	-65.949	-944.05	-570.46	278.48	121.53	156.95	1.774	
5,400.00	5,095.10	9,881.28	4,898.64	21.18	160.23	-58.740	-943.48	-532.78	301.91	152.65	149.26	2.023	
5,450.00	5,126.19	9,920.35	4,898.90	21.21	161.46	-52.723	-942.97	-493.72	324.64	182.92	141.72	2.291	
5,500.00	5,154.62	9,961.27	4,899.06	21.25	162.74	-47.700	-942.52	-452.80	346.05	211.41	134.64	2.570	
5,550.00	5,180.35	10,003.98	4,899.12	21.27	164.08	-43.908	-942.11	-410.09	365.76	237.01	128.75	2.841	
5,600.00	5,205.35	10,047.04	4,899.10	21.30	165.43	-41.508	-941.76	-367.03	385.47	260.81	124.66	3.092	
5,650.00	5,230.35	10,090.12	4,898.94	21.33	166.78	-39.289	-941.56	-323.95	405.78	285.01	120.78	3.360	
5,700.00	5,255.35	10,132.97	4,898.54	21.36	168.13	-37.219	-941.67	-281.10	426.65	309.59	117.06	3.645	
5,750.00	5,280.20	10,178.92	4,898.00	21.40	169.57	-34.791	-942.10	-235.16	447.80	335.53	112.27	3.989	
5,800.00	5,302.17	10,229.12	4,897.86	21.44	171.15	-31.942	-942.82	-184.96	466.41	360.47	105.94	4.403	
5,850.00	5,320.15	10,278.56	4,898.15	21.48	172.70	-29.877	-943.78	-135.54	481.33	379.96	101.37	4.748	
5,900.00	5,333.99	10,326.67	4,898.49	21.52	174.21	-28.423	-944.78	-87.44	492.68	394.36	98.32	5.011	
5,950.00	5,343.59	10,347.00	4,898.63	21.56	174.85	-27.730	-945.21	-67.11	501.17	404.28	96.89	5.173	
6,000.00	5,348.88	10,347.00	4,898.63	21.60	174.85	-27.302	-945.21	-67.11	510.28	414.23	96.05	5.313	
6,050.00	5,350.00	10,347.00	4,898.63	21.64	174.85	-26.973	-945.21	-67.11	520.45	424.86	95.59	5.445	
6,100.00	5,350.00	10,347.00	4,898.63	21.69	174.85	-26.973	-945.21	-67.11	534.18	438.43	95.75	5.579	
6,150.00	5,350.00	10,347.00	4,898.63	21.77	174.85	-26.973	-945.21	-67.11	552.12	456.18	95.94	5.755	
6,200.00	5,350.00	10,347.00	4,898.63	21.87	174.85	-26.973	-945.21	-67.11	573.87	477.74	96.13	5.970	
6,250.00	5,350.00	10,347.00	4,898.63	21.99	174.85	-26.973	-945.21	-67.11	599.01	502.67	96.33	6.218	
6,300.00	5,350.00	10,347.00	4,898.63	22.14	174.85	-26.973	-945.21	-67.11	627.13	530.59	96.54	6.496	
6,350.00	5,350.00	10,347.00	4,898.63	22.32	174.85	-26.973	-945.21	-67.11	657.86	561.10	96.76	6.799	
6,400.00	5,350.00	10,347.00	4,898.63	22.51	174.85	-26.973	-945.21	-67.11	690.84	593.87	96.98	7.124	
6,450.00	5,350.00	10,347.00	4,898.63	22.74	174.85	-26.973	-945.21	-67.11	725.77	628.56	97.21	7.466	
6,500.00	5,350.00	10,347.00	4,898.63	22.98	174.85	-26.973	-945.21	-67.11	762.38	664.94	97.44	7.824	
6,550.00	5,350.00	10,347.00	4,898.63	23.24	174.85	-26.973	-945.21	-67.11	800.45	702.76	97.69	8.194	
6,600.00	5,350.00	10,347.00	4,898.63	23.52	174.85	-26.973	-945.21	-67.11	839.76	741.83	97.93	8.575	
6,650.00	5,350.00	10,347.00	4,898.63	23.81	174.85	-26.973	-945.21	-67.11	880.16	781.98	98.18	8.964	
6,700.00	5,350.00	10,347.00	4,898.63	24.11	174.85	-26.973	-945.21	-67.11	921.50	823.07	98.44	9.361	
6,750.00	5,350.00	10,347.00	4,898.63	24.43	174.85	-26.973	-945.21	-67.11	963.67	864.97	98.70	9.764	
6,800.00	5,350.00	10,347.00	4,898.63	24.75	174.85	-26.973	-945.21	-67.11	1,006.55	907.59	98.96	10.171	
6,850.00	5,350.00	10,347.00	4,898.63	25.09	174.85	-26.973	-945.21	-67.11	1,050.06	950.83	99.23	10.582	
6,900.00	5,350.00	10,347.00	4,898.63	25.43	174.85	-26.973	-945.21	-67.11	1,094.12	994.63	99.50	10.997	
6,950.00	5,350.00	10,347.00	4,898.63	25.79	174.85	-26.973	-945.21	-67.11	1,138.68	1,038.91	99.77	11.413	
7,000.00	5,350.00	10,347.00	4,898.63	26.15	174.85	-26.973	-945.21	-67.11	1,183.67	1,083.62	100.05	11.831	
7,050.00	5,350.00	10,347.00	4,898.63	26.52	174.85	-26.973	-945.21	-67.11	1,229.05	1,128.72	100.33	12.250	
7,100.00	5,350.00	10,347.00	4,898.63	26.89	174.85	-26.973	-945.21	-67.11	1,274.77	1,174.16	100.61	12.671	
7,150.00	5,350.00	10,347.00	4,898.63	27.28	174.85	-26.973	-945.21	-67.11	1,320.81	1,219.91	100.89	13.091	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,200.00	5,350.00	10,347.00	4,898.63	27.67	174.85	-26.973	-945.21	-67.11	1,367.12	1,265.94	101.18	13.512		
7,250.00	5,350.00	10,347.00	4,898.63	28.07	174.85	-26.973	-945.21	-67.11	1,413.68	1,312.21	101.47	13.932		
7,300.00	5,350.00	10,347.00	4,898.63	28.47	174.85	-26.973	-945.21	-67.11	1,460.47	1,358.72	101.76	14.353		
7,350.00	5,350.00	10,347.00	4,898.63	28.88	174.85	-26.973	-945.21	-67.11	1,507.47	1,405.42	102.05	14.772		
7,400.00	5,350.00	10,347.00	4,898.63	29.29	174.85	-26.973	-945.21	-67.11	1,554.65	1,452.31	102.34	15.191		
7,450.00	5,350.00	10,347.00	4,898.63	29.71	174.85	-26.973	-945.21	-67.11	1,602.01	1,499.37	102.64	15.608		
7,500.00	5,350.00	10,347.00	4,898.63	30.13	174.85	-26.973	-945.21	-67.11	1,649.52	1,546.59	102.93	16.025		
7,550.00	5,350.00	10,347.00	4,898.63	30.56	174.85	-26.973	-945.21	-67.11	1,697.18	1,593.94	103.23	16.440		
7,600.00	5,350.00	10,347.00	4,898.63	30.99	174.85	-26.973	-945.21	-67.11	1,744.96	1,641.43	103.53	16.854		
7,650.00	5,350.00	10,347.00	4,898.63	31.43	174.85	-26.973	-945.21	-67.11	1,792.87	1,689.03	103.83	17.267		
7,700.00	5,350.00	10,347.00	4,898.63	31.87	174.85	-26.973	-945.21	-67.11	1,840.89	1,736.75	104.13	17.678		
7,750.00	5,350.00	10,347.00	4,898.63	32.31	174.85	-26.973	-945.21	-67.11	1,889.01	1,784.57	104.44	18.087		
7,800.00	5,350.00	10,347.00	4,898.63	32.76	174.85	-26.973	-945.21	-67.11	1,937.22	1,832.48	104.74	18.496		
7,850.00	5,350.00	10,347.00	4,898.63	33.21	174.85	-26.973	-945.21	-67.11	1,985.53	1,880.48	105.05	18.902		
7,900.00	5,350.00	10,347.00	4,898.63	33.66	174.85	-26.973	-945.21	-67.11	2,033.91	1,928.56	105.35	19.306		
7,950.00	5,350.00	10,347.00	4,898.63	34.12	174.85	-26.973	-945.21	-67.11	2,082.37	1,976.72	105.66	19.709		
8,000.00	5,350.00	10,347.00	4,898.63	34.58	174.85	-26.973	-945.21	-67.11	2,130.91	2,024.94	105.96	20.110		
8,050.00	5,350.00	10,347.00	4,898.63	35.05	174.85	-26.973	-945.21	-67.11	2,179.51	2,073.23	106.27	20.509		
8,100.00	5,350.00	10,347.00	4,898.63	35.51	174.85	-26.973	-945.21	-67.11	2,228.17	2,121.59	106.58	20.906		
8,150.00	5,350.00	10,347.00	4,898.63	35.98	174.85	-26.973	-945.21	-67.11	2,276.89	2,170.00	106.89	21.301		
8,200.00	5,350.00	10,347.00	4,898.63	36.46	174.85	-26.973	-945.21	-67.11	2,325.66	2,218.46	107.20	21.694		
8,250.00	5,350.00	10,347.00	4,898.63	36.93	174.85	-26.973	-945.21	-67.11	2,374.49	2,266.97	107.51	22.086		
8,300.00	5,350.00	10,347.00	4,898.63	37.41	174.85	-26.973	-945.21	-67.11	2,423.36	2,315.54	107.82	22.475		
8,350.00	5,350.00	10,347.00	4,898.63	37.89	174.85	-26.973	-945.21	-67.11	2,472.28	2,364.14	108.14	22.863		
8,400.00	5,350.00	10,347.00	4,898.63	38.37	174.85	-26.973	-945.21	-67.11	2,521.24	2,412.79	108.45	23.248		
8,450.00	5,350.00	10,347.00	4,898.63	38.86	174.85	-26.973	-945.21	-67.11	2,570.24	2,461.48	108.76	23.632		
8,500.00	5,350.00	10,347.00	4,898.63	39.34	174.85	-26.973	-945.21	-67.11	2,619.28	2,510.20	109.08	24.013		
8,550.00	5,350.00	10,347.00	4,898.63	39.83	174.85	-26.973	-945.21	-67.11	2,668.35	2,558.96	109.39	24.393		
8,600.00	5,350.00	10,347.00	4,898.63	40.32	174.85	-26.973	-945.21	-67.11	2,717.46	2,607.75	109.70	24.771		
8,650.00	5,350.00	10,347.00	4,898.63	40.81	174.85	-26.973	-945.21	-67.11	2,766.60	2,656.58	110.02	25.146		
8,700.00	5,350.00	10,347.00	4,898.63	41.31	174.85	-26.973	-945.21	-67.11	2,815.77	2,705.43	110.34	25.520		
8,750.00	5,350.00	10,347.00	4,898.63	41.80	174.85	-26.973	-945.21	-67.11	2,864.97	2,754.32	110.65	25.892		
8,800.00	5,350.00	10,347.00	4,898.63	42.30	174.85	-26.973	-945.21	-67.11	2,914.19	2,803.23	110.97	26.262		
8,850.00	5,350.00	10,347.00	4,898.63	42.80	174.85	-26.973	-945.21	-67.11	2,963.44	2,852.16	111.28	26.629		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	36.00	0.00	0.00	-160.391	-1,599.45	-569.83	1,698.31				
50.00	50.00	12.42	48.42	0.05	0.02	-160.391	-1,599.46	-569.83	1,697.93	1,697.85	0.08	N/A	
100.00	100.00	56.77	92.77	0.14	0.10	-160.391	-1,599.57	-569.86	1,698.06	1,697.81	0.25	6,913.904	
150.00	150.00	100.00	136.00	0.32	0.18	-160.391	-1,599.81	-569.94	1,698.36	1,697.85	0.50	3,379.789	
200.00	200.00	149.52	185.52	0.50	0.36	-160.392	-1,600.19	-570.05	1,698.76	1,697.90	0.86	1,976.817	
250.00	250.00	197.81	233.81	0.68	0.53	-160.393	-1,600.61	-570.17	1,699.21	1,698.00	1.21	1,402.346	
300.00	300.00	239.22	275.21	0.86	0.68	-160.395	-1,601.10	-570.28	1,699.81	1,698.27	1.54	1,104.031	
350.00	350.00	280.30	316.29	1.03	0.83	-17.098	-1,601.81	-570.39	1,700.25	1,698.39	1.86	912.901	
400.00	399.98	322.61	358.59	1.21	0.98	-17.117	-1,602.77	-570.50	1,700.11	1,697.92	2.20	774.190	
450.00	449.93	366.05	402.01	1.38	1.14	-17.153	-1,603.96	-570.55	1,699.34	1,696.81	2.54	670.241	
500.00	499.84	412.76	448.69	1.55	1.31	-17.208	-1,605.46	-570.52	1,697.92	1,695.03	2.89	588.234	
550.00	549.68	471.24	507.14	1.73	1.52	-17.295	-1,607.25	-570.30	1,695.55	1,692.27	3.28	516.423	
600.00	599.45	525.70	561.59	1.90	1.72	-17.397	-1,608.73	-569.91	1,692.13	1,688.46	3.66	461.737	
650.00	649.13	576.29	612.16	2.08	1.90	-17.509	-1,610.05	-569.52	1,687.83	1,683.79	4.03	418.397	
700.00	698.70	631.48	667.32	2.26	2.10	-17.645	-1,611.42	-569.07	1,682.64	1,678.23	4.42	380.973	
750.00	748.15	690.60	726.43	2.44	2.31	-17.811	-1,612.65	-568.38	1,676.38	1,671.57	4.81	348.422	
800.00	797.47	749.58	785.40	2.62	2.52	-17.995	-1,613.54	-567.62	1,669.02	1,663.82	5.20	320.947	
850.00	846.63	807.45	843.26	2.80	2.72	-18.186	-1,614.00	-567.09	1,660.56	1,654.97	5.59	297.185	
900.00	895.62	859.72	895.53	2.99	2.91	-18.378	-1,614.21	-566.64	1,651.13	1,645.18	5.95	277.650	
950.00	944.44	910.85	946.66	3.18	3.08	-18.588	-1,614.33	-566.14	1,640.80	1,634.49	6.30	260.349	
1,000.00	993.06	958.70	994.51	3.37	3.25	-18.808	-1,614.44	-565.64	1,629.65	1,623.01	6.64	245.415	
1,050.00	1,041.46	1,006.43	1,042.24	3.56	3.42	-19.049	-1,614.59	-565.09	1,617.74	1,610.76	6.98	231.901	
1,100.00	1,089.64	1,054.49	1,090.29	3.76	3.59	-19.313	-1,614.76	-564.51	1,605.05	1,597.74	7.31	219.515	
1,150.00	1,137.58	1,102.41	1,138.21	3.96	3.76	-19.598	-1,614.94	-563.91	1,591.58	1,583.94	7.64	208.238	
1,200.00	1,185.27	1,152.41	1,188.20	4.16	3.93	-19.915	-1,615.08	-563.27	1,577.30	1,569.33	7.98	197.703	
1,250.00	1,232.68	1,201.97	1,237.75	4.36	4.11	-20.253	-1,615.14	-562.67	1,562.19	1,553.88	8.31	188.026	
1,300.00	1,279.83	1,248.51	1,284.29	4.57	4.27	-20.557	-1,615.15	-562.14	1,546.34	1,537.72	8.63	179.215	
1,350.00	1,326.92	1,295.01	1,330.79	4.78	4.43	-20.792	-1,615.17	-561.66	1,530.38	1,521.42	8.95	170.907	
1,400.00	1,374.01	1,343.35	1,379.13	4.99	4.60	-21.040	-1,615.16	-561.20	1,514.42	1,505.13	9.29	163.047	
1,450.00	1,421.10	1,391.86	1,427.64	5.20	4.77	-21.294	-1,615.11	-560.72	1,498.44	1,488.82	9.62	155.695	
1,500.00	1,468.19	1,439.39	1,475.17	5.41	4.94	-21.547	-1,615.01	-560.28	1,482.45	1,472.50	9.96	148.880	
1,550.00	1,515.28	1,486.75	1,522.52	5.63	5.10	-21.799	-1,614.87	-559.96	1,466.48	1,456.19	10.29	142.499	
1,600.00	1,562.37	1,532.62	1,568.39	5.84	5.26	-22.044	-1,614.70	-559.75	1,450.54	1,439.92	10.62	136.576	
1,650.00	1,609.46	1,577.94	1,613.72	6.06	5.42	-22.289	-1,614.58	-559.60	1,434.67	1,423.72	10.95	131.026	
1,700.00	1,656.55	1,625.86	1,661.64	6.27	5.58	-22.553	-1,614.47	-559.48	1,418.87	1,407.58	11.29	125.701	
1,750.00	1,703.64	1,676.15	1,711.92	6.49	5.76	-22.836	-1,614.26	-559.34	1,403.00	1,391.36	11.63	120.590	
1,800.00	1,750.73	1,725.32	1,761.09	6.71	5.93	-23.118	-1,613.95	-559.19	1,387.06	1,375.08	11.98	115.799	
1,850.00	1,797.82	1,773.51	1,809.28	6.93	6.09	-23.400	-1,613.59	-559.07	1,371.10	1,358.78	12.32	111.297	
1,900.00	1,844.91	1,820.97	1,856.73	7.14	6.25	-23.680	-1,613.18	-559.01	1,355.13	1,342.47	12.66	107.055	
1,950.00	1,892.00	1,867.54	1,903.31	7.36	6.41	-23.958	-1,612.76	-559.04	1,339.19	1,326.20	12.99	103.056	
2,000.00	1,939.08	1,914.41	1,950.18	7.58	6.57	-24.240	-1,612.33	-559.16	1,323.30	1,309.97	13.33	99.251	
2,050.00	1,986.17	1,961.89	1,997.65	7.80	6.73	-24.529	-1,611.86	-559.37	1,307.43	1,293.76	13.67	95.617	
2,100.00	2,033.26	2,010.49	2,046.25	8.02	6.89	-24.828	-1,611.34	-559.65	1,291.57	1,277.55	14.02	92.130	
2,150.00	2,080.35	2,063.52	2,099.27	8.24	7.08	-25.164	-1,610.60	-559.91	1,275.58	1,261.20	14.38	88.698	
2,200.00	2,127.44	2,113.15	2,148.89	8.46	7.24	-25.489	-1,609.72	-560.04	1,259.42	1,244.68	14.73	85.480	
2,250.00	2,174.53	2,155.62	2,191.36	8.68	7.39	-25.778	-1,609.04	-560.11	1,243.37	1,228.30	15.06	82.540	
2,300.00	2,221.62	2,200.00	2,235.73	8.90	7.54	-26.090	-1,608.50	-560.13	1,227.52	1,212.12	15.40	79.703	
2,350.00	2,268.71	2,246.18	2,281.91	9.12	7.70	-26.420	-1,607.99	-560.23	1,211.77	1,196.03	15.75	76.960	
2,400.00	2,315.80	2,294.44	2,330.17	9.34	7.87	-26.764	-1,607.37	-560.52	1,196.01	1,179.92	16.10	74.299	
2,450.00	2,362.89	2,338.31	2,374.03	9.56	8.02	-27.081	-1,606.81	-560.86	1,180.32	1,163.89	16.44	71.816	
2,500.00	2,409.98	2,381.66	2,417.38	9.78	8.17	-27.406	-1,606.41	-561.14	1,164.82	1,148.04	16.77	69.449	
2,550.00	2,457.07	2,427.85	2,463.57	10.00	8.33	-27.765	-1,606.10	-561.39	1,149.47	1,132.35	17.12	67.140	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.00	2,504.16	2,476.06	2,511.77	10.22	8.49	-28.150	-1,605.75	-561.63	1,134.13	1,116.65	17.48	64.894	
2,650.00	2,551.25	2,523.46	2,559.17	10.44	8.66	-28.539	-1,605.38	-561.86	1,118.80	1,100.97	17.83	62.741	
2,700.00	2,598.34	2,570.07	2,605.78	10.67	8.82	-28.936	-1,605.02	-562.00	1,103.53	1,085.35	18.19	60.678	
2,750.00	2,645.42	2,616.32	2,652.03	10.89	8.98	-29.346	-1,604.71	-562.07	1,088.33	1,069.79	18.54	58.698	
2,800.00	2,692.51	2,662.01	2,697.72	11.11	9.14	-29.759	-1,604.44	-562.17	1,073.24	1,054.35	18.89	56.801	
2,850.00	2,739.60	2,707.98	2,743.69	11.33	9.30	-30.184	-1,604.22	-562.34	1,058.26	1,039.01	19.25	54.973	
2,900.00	2,786.69	2,755.17	2,790.88	11.55	9.46	-30.625	-1,603.99	-562.62	1,043.36	1,023.75	19.61	53.203	
2,950.00	2,833.78	2,802.51	2,838.21	11.77	9.63	-31.072	-1,603.74	-563.03	1,028.51	1,008.53	19.97	51.495	
3,000.00	2,880.87	2,851.76	2,887.46	12.00	9.80	-31.548	-1,603.42	-563.52	1,013.66	993.31	20.34	49.826	
3,050.00	2,927.96	2,900.00	2,935.70	12.22	9.96	-32.028	-1,603.00	-563.98	998.77	978.06	20.71	48.221	
3,100.00	2,975.05	2,945.95	2,981.64	12.44	10.12	-32.504	-1,602.61	-564.32	983.95	962.88	21.08	46.688	
3,150.00	3,022.14	2,991.02	3,026.71	12.66	10.28	-32.997	-1,602.33	-564.46	969.29	947.86	21.44	45.217	
3,200.00	3,069.23	3,036.62	3,072.31	12.89	10.44	-33.517	-1,602.15	-564.49	954.80	933.00	21.80	43.795	
3,250.00	3,116.32	3,082.40	3,118.09	13.11	10.60	-34.053	-1,602.03	-564.56	940.45	918.28	22.17	42.422	
3,300.00	3,163.41	3,128.80	3,164.50	13.33	10.76	-34.609	-1,601.96	-564.66	926.24	903.70	22.54	41.093	
3,350.00	3,210.50	3,175.57	3,211.27	13.55	10.93	-35.187	-1,601.90	-564.76	912.15	889.23	22.91	39.808	
3,400.00	3,257.59	3,222.66	3,258.35	13.78	11.09	-35.787	-1,601.86	-564.86	898.15	874.86	23.29	38.562	
3,450.00	3,304.68	3,270.09	3,305.78	14.00	11.26	-36.409	-1,601.81	-564.97	884.24	860.57	23.67	37.355	
3,500.00	3,351.76	3,317.37	3,353.06	14.22	11.42	-37.046	-1,601.74	-565.09	870.42	846.36	24.05	36.186	
3,550.00	3,398.85	3,364.39	3,400.08	14.44	11.59	-37.703	-1,601.67	-565.17	856.70	832.26	24.44	35.056	
3,600.00	3,445.94	3,411.54	3,447.23	14.67	11.75	-38.385	-1,601.60	-565.20	843.10	818.27	24.83	33.961	
3,650.00	3,493.03	3,459.16	3,494.85	14.89	11.92	-39.097	-1,601.51	-565.21	829.59	804.38	25.22	32.898	
3,700.00	3,540.12	3,506.62	3,542.31	15.11	12.09	-39.829	-1,601.39	-565.23	816.18	790.57	25.61	31.868	
3,750.00	3,587.21	3,553.19	3,588.89	15.34	12.25	-40.569	-1,601.28	-565.26	802.91	776.91	26.00	30.877	
3,800.00	3,634.30	3,600.00	3,635.69	15.56	12.42	-41.337	-1,601.20	-565.28	789.81	763.41	26.40	29.917	
3,850.00	3,681.39	3,646.76	3,682.45	15.78	12.58	-42.128	-1,601.13	-565.30	776.86	750.07	26.80	28.989	
3,900.00	3,728.48	3,693.73	3,729.43	16.01	12.75	-42.949	-1,601.07	-565.32	764.08	736.88	27.20	28.090	
3,950.00	3,775.57	3,741.20	3,776.89	16.23	12.92	-43.806	-1,601.00	-565.32	751.45	723.84	27.61	27.218	
4,000.00	3,822.66	3,788.71	3,824.40	16.45	13.08	-44.694	-1,600.90	-565.29	738.96	710.94	28.02	26.373	
4,050.00	3,869.75	3,835.29	3,870.98	16.67	13.25	-45.594	-1,600.80	-565.24	726.64	698.21	28.43	25.560	
4,100.00	3,916.84	3,881.62	3,917.31	16.90	13.41	-46.517	-1,600.73	-565.19	714.56	685.72	28.84	24.776	
4,150.00	3,963.93	3,929.46	3,965.15	17.12	13.58	-47.501	-1,600.69	-565.15	702.69	673.43	29.26	24.014	
4,200.00	4,011.02	3,978.24	4,013.93	17.34	13.75	-48.537	-1,600.54	-565.12	690.93	661.24	29.69	23.271	
4,250.00	4,058.10	4,025.06	4,060.75	17.57	13.92	-49.562	-1,600.31	-565.12	679.30	649.19	30.11	22.559	
4,300.00	4,105.19	4,070.37	4,106.06	17.79	14.08	-50.588	-1,600.18	-565.08	668.01	637.47	30.53	21.879	
4,350.00	4,152.28	4,117.50	4,153.19	18.01	14.24	-51.687	-1,600.15	-565.02	657.05	626.09	30.96	21.222	
4,400.00	4,199.37	4,167.95	4,203.64	18.24	14.42	-52.894	-1,599.96	-565.09	646.18	614.77	31.41	20.573	
4,450.00	4,246.46	4,216.25	4,251.94	18.46	14.59	-54.079	-1,599.59	-565.31	635.36	603.51	31.85	19.948	
4,500.00	4,293.55	4,260.86	4,296.55	18.68	14.75	-55.215	-1,599.30	-565.41	624.90	592.62	32.28	19.359	
4,550.00	4,340.64	4,309.24	4,344.93	18.91	14.92	-56.489	-1,599.03	-565.45	614.79	582.06	32.73	18.784	
4,600.00	4,387.73	4,357.30	4,392.99	19.13	15.09	-57.779	-1,598.76	-565.68	604.92	571.74	33.18	18.233	
4,650.00	4,434.91	4,403.09	4,470.64	19.35	15.36	-59.012	-1,597.68	-569.44	594.32	560.61	33.71	17.632	
4,700.00	4,482.67	4,453.18	4,566.84	19.57	15.70	-60.320	-1,593.37	-587.48	579.10	544.96	34.14	16.960	
4,750.00	4,530.89	4,613.51	4,642.18	19.77	15.99	-62.390	-1,588.59	-614.74	559.73	525.35	34.38	16.282	
4,800.00	4,579.34	4,676.41	4,697.75	19.95	16.24	-7.353	-1,585.11	-643.91	538.10	503.60	34.50	15.597	
4,850.00	4,627.79	4,736.19	4,747.05	20.12	16.51	14.152	-1,581.51	-677.47	515.06	480.43	34.64	14.870	
4,900.00	4,676.00	4,781.14	4,781.73	20.28	16.75	33.566	-1,578.49	-705.89	492.28	457.46	34.82	14.137	
4,950.00	4,723.73	4,818.24	4,808.56	20.42	16.98	49.866	-1,575.77	-731.36	471.39	436.33	35.06	13.444	
5,000.00	4,770.75	4,843.88	4,826.08	20.54	17.16	62.316	-1,573.75	-749.97	453.98	418.69	35.29	12.863	
5,050.00	4,816.83	4,861.50	4,837.63	20.66	17.29	71.501	-1,572.32	-763.19	441.48	406.00	35.48	12.441	
5,100.00	4,861.74	4,873.55	4,845.32	20.76	17.39	78.108	-1,571.34	-772.43	434.97	399.34	35.63	12.208	
5,124.21	4,883.01	4,877.76	4,847.96	20.81	17.42	80.531	-1,570.99	-775.68	434.18	398.49	35.69	12.166 CC, ES, SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toelface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	4,880.00	4,849.36	20.86	17.44	82.464	-1,570.81	-777.42	435.09	399.34	35.75	12.171	
5,200.00	4,947.22	4,885.22	4,852.59	20.94	17.48	85.396	-1,570.38	-781.50	442.03	406.16	35.87	12.323	
5,250.00	4,987.37	4,886.20	4,853.19	21.01	17.49	86.682	-1,570.30	-782.27	455.55	419.53	36.02	12.648	
5,300.00	5,025.51	4,884.74	4,852.30	21.07	17.48	86.668	-1,570.42	-781.13	475.04	438.84	36.21	13.120	
5,350.00	5,061.48	4,880.00	4,849.36	21.13	17.44	85.312	-1,570.81	-777.42	499.71	463.28	36.43	13.717	
5,400.00	5,095.10	4,880.00	4,849.36	21.18	17.44	83.747	-1,570.81	-777.42	528.66	491.99	36.67	14.418	
5,450.00	5,126.19	4,869.28	4,842.62	21.21	17.35	79.968	-1,571.69	-769.14	560.98	524.16	36.82	15.237	
5,500.00	5,154.62	4,861.26	4,837.48	21.25	17.29	75.860	-1,572.34	-763.02	595.93	559.13	36.80	16.192	
5,550.00	5,180.35	4,848.00	4,828.81	21.27	17.19	71.661	-1,573.42	-753.03	632.84	596.30	36.55	17.317	
5,600.00	5,205.35	4,848.00	4,828.81	21.30	17.19	71.661	-1,573.42	-753.03	671.22	634.57	36.66	18.312	
5,650.00	5,230.35	4,835.83	4,820.67	21.33	17.10	70.216	-1,574.39	-744.04	710.84	674.26	36.58	19.431	
5,700.00	5,255.35	4,828.65	4,815.78	21.36	17.05	69.375	-1,574.96	-738.82	751.58	714.99	36.59	20.543	
5,750.00	5,280.20	4,816.00	4,806.99	21.40	16.97	65.928	-1,575.94	-729.77	793.26	757.06	36.20	21.913	
5,800.00	5,302.17	4,816.00	4,806.99	21.44	16.97	59.243	-1,575.94	-729.77	834.93	799.97	34.96	23.884	
5,850.00	5,320.15	4,805.79	4,799.75	21.48	16.90	52.358	-1,576.72	-722.61	876.14	843.12	33.02	26.530	
5,900.00	5,333.99	4,796.14	4,792.79	21.52	16.84	46.500	-1,577.43	-715.97	916.55	885.66	30.89	29.669	
5,950.00	5,343.59	4,785.00	4,784.60	21.56	16.77	41.490	-1,578.22	-708.46	955.87	927.11	28.77	33.229	
6,000.00	5,348.88	4,774.09	4,776.44	21.60	16.71	37.330	-1,578.98	-701.26	993.86	966.95	26.90	36.942	
6,050.00	5,350.00	4,753.00	4,760.27	21.64	16.60	34.387	-1,580.41	-687.79	1,030.49	1,004.86	25.63	40.204	
6,100.00	5,350.00	4,753.00	4,760.27	21.69	16.60	34.387	-1,580.41	-687.79	1,067.08	1,041.30	25.78	41.388	
6,150.00	5,350.00	4,737.70	4,748.25	21.77	16.52	33.918	-1,581.42	-678.38	1,104.45	1,078.76	25.69	42.992	
6,200.00	5,350.00	4,721.00	4,734.87	21.87	16.44	33.408	-1,582.48	-668.45	1,142.51	1,116.94	25.57	44.675	
6,250.00	5,350.00	4,721.00	4,734.87	21.99	16.44	33.408	-1,582.48	-668.45	1,181.16	1,155.41	25.75	45.875	
6,300.00	5,350.00	4,706.34	4,722.90	22.14	16.37	32.962	-1,583.38	-660.04	1,220.37	1,194.69	25.68	47.520	
6,350.00	5,350.00	4,690.00	4,709.28	22.32	16.30	32.465	-1,584.34	-651.06	1,260.23	1,234.64	25.60	49.233	
6,400.00	5,350.00	4,690.00	4,709.28	22.51	16.30	32.465	-1,584.34	-651.06	1,300.48	1,274.70	25.78	50.443	
6,450.00	5,350.00	4,690.00	4,709.28	22.74	16.30	32.465	-1,584.34	-651.06	1,341.39	1,315.42	25.98	51.641	
6,500.00	5,350.00	4,673.43	4,695.20	22.98	16.23	31.964	-1,585.27	-642.38	1,382.55	1,356.65	25.90	53.381	
6,550.00	5,350.00	4,658.00	4,681.84	23.24	16.16	31.501	-1,586.11	-634.70	1,424.33	1,398.48	25.85	55.096	
6,600.00	5,350.00	4,658.00	4,681.84	23.52	16.16	31.501	-1,586.11	-634.70	1,466.34	1,440.29	26.05	56.280	
6,650.00	5,350.00	4,658.00	4,681.84	23.81	16.16	31.501	-1,586.11	-634.70	1,508.84	1,482.57	26.27	57.445	
6,700.00	5,350.00	4,658.00	4,681.84	24.11	16.16	31.501	-1,586.11	-634.70	1,551.78	1,525.31	26.48	58.607	
6,750.00	5,350.00	4,640.34	4,666.29	24.43	16.10	30.977	-1,587.07	-626.39	1,594.76	1,568.35	26.41	60.382	
6,800.00	5,350.00	4,626.00	4,653.47	24.75	16.04	30.560	-1,587.87	-620.01	1,638.30	1,611.90	26.40	62.056	
6,850.00	5,350.00	4,626.00	4,653.47	25.09	16.04	30.560	-1,587.87	-620.01	1,681.96	1,655.34	26.63	63.172	
6,900.00	5,350.00	4,626.00	4,653.47	25.43	16.04	30.560	-1,587.87	-620.01	1,725.97	1,699.12	26.85	64.280	
6,950.00	5,350.00	4,626.00	4,653.47	25.79	16.04	30.560	-1,587.87	-620.01	1,770.29	1,743.21	27.08	65.365	
7,000.00	5,350.00	4,626.00	4,653.47	26.15	16.04	30.560	-1,587.87	-620.01	1,814.91	1,787.60	27.32	66.442	
7,050.00	5,350.00	4,609.94	4,638.92	26.52	15.98	30.101	-1,588.80	-613.28	1,859.48	1,832.19	27.30	68.121	
7,100.00	5,350.00	4,595.00	4,625.20	26.89	15.92	29.685	-1,589.73	-607.44	1,904.58	1,877.28	27.30	69.769	
7,150.00	5,350.00	4,595.00	4,625.20	27.28	15.92	29.685	-1,589.73	-607.44	1,949.65	1,922.11	27.54	70.792	
7,200.00	5,350.00	4,595.00	4,625.20	27.67	15.92	29.685	-1,589.73	-607.44	1,994.96	1,967.17	27.78	71.805	
7,250.00	5,350.00	4,595.00	4,625.20	28.07	15.92	29.685	-1,589.73	-607.44	2,040.48	2,012.45	28.03	72.794	
7,300.00	5,350.00	4,595.00	4,625.20	28.47	15.92	29.685	-1,589.73	-607.44	2,086.21	2,057.93	28.28	73.773	
7,350.00	5,350.00	4,595.00	4,625.20	28.88	15.92	29.685	-1,589.73	-607.44	2,132.13	2,103.60	28.53	74.728	
7,400.00	5,350.00	4,582.24	4,613.36	29.29	15.88	29.335	-1,590.53	-602.76	2,178.05	2,149.47	28.58	76.211	
7,450.00	5,350.00	4,578.67	4,610.02	29.71	15.86	29.238	-1,590.75	-601.51	2,224.21	2,195.43	28.78	77.288	
7,500.00	5,350.00	4,563.00	4,595.29	30.13	15.81	28.815	-1,591.69	-596.25	2,270.66	2,241.88	28.78	78.891	
7,550.00	5,350.00	4,563.00	4,595.29	30.56	15.81	28.815	-1,591.69	-596.25	2,317.00	2,287.96	29.04	79.784	
7,600.00	5,350.00	4,563.00	4,595.29	30.99	15.81	28.815	-1,591.69	-596.25	2,363.49	2,334.19	29.30	80.664	
7,650.00	5,350.00	4,563.00	4,595.29	31.43	15.81	28.815	-1,591.69	-596.25	2,410.12	2,380.56	29.56	81.525	
7,700.00	5,350.00	4,563.00	4,595.29	31.87	15.81	28.815	-1,591.69	-596.25	2,456.89	2,427.06	29.83	82.373	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #965H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	4,563.00	4,595.29	32.31	15.81	28.815	-1,591.69	-596.25	2,503.77	2,473.68	30.09	83.201	
7,800.00	5,350.00	4,563.00	4,595.29	32.76	15.81	28.815	-1,591.69	-596.25	2,550.78	2,520.42	30.36	84.018	
7,850.00	5,350.00	4,563.00	4,595.29	33.21	15.81	28.815	-1,591.69	-596.25	2,597.90	2,567.27	30.63	84.815	
7,900.00	5,350.00	4,563.00	4,595.29	33.66	15.81	28.815	-1,591.69	-596.25	2,645.12	2,614.22	30.90	85.601	
7,950.00	5,350.00	4,549.56	4,582.53	34.12	15.76	28.456	-1,592.46	-592.09	2,692.24	2,661.29	30.95	86.994	
8,000.00	5,350.00	4,547.19	4,580.27	34.58	15.75	28.393	-1,592.60	-591.39	2,739.58	2,708.40	31.18	87.864	
8,050.00	5,350.00	4,544.89	4,578.08	35.05	15.74	28.333	-1,592.72	-590.72	2,787.00	2,755.58	31.42	88.714	
8,100.00	5,350.00	4,531.00	4,564.74	35.51	15.69	27.969	-1,593.49	-586.90	2,834.65	2,803.20	31.46	90.116	
8,150.00	5,350.00	4,531.00	4,564.74	35.98	15.69	27.969	-1,593.49	-586.90	2,882.17	2,850.44	31.73	90.831	
8,200.00	5,350.00	4,531.00	4,564.74	36.46	15.69	27.969	-1,593.49	-586.90	2,929.77	2,897.77	32.01	91.535	
8,250.00	5,350.00	4,531.00	4,564.74	36.93	15.69	27.969	-1,593.49	-586.90	2,977.45	2,945.17	32.29	92.224	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 25-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.00	2,504.16	9,495.06	4,906.99	10.22	148.51	-62.538	-2,266.87	-382.27	2,989.15	2,846.96	142.19	21.023	
2,650.00	2,551.25	9,485.40	4,906.91	10.44	148.20	-62.128	-2,266.89	-391.93	2,943.27	2,800.76	142.51	20.653	
2,700.00	2,598.34	9,476.78	4,906.83	10.67	147.93	-61.759	-2,266.90	-400.55	2,897.50	2,754.67	142.82	20.288	
2,750.00	2,645.42	9,468.16	4,906.76	10.89	147.66	-61.388	-2,266.92	-409.17	2,851.83	2,708.71	143.13	19.925	
2,800.00	2,692.51	9,459.51	4,906.70	11.11	147.39	-61.013	-2,266.93	-417.83	2,806.29	2,662.87	143.43	19.566	
2,850.00	2,739.60	9,450.22	4,906.63	11.33	147.10	-60.609	-2,266.95	-427.11	2,760.87	2,617.15	143.73	19.209	
2,900.00	2,786.69	9,439.20	4,906.55	11.55	146.76	-60.125	-2,266.97	-438.13	2,715.58	2,571.54	144.03	18.854	
2,950.00	2,833.78	9,428.25	4,906.46	11.77	146.41	-59.640	-2,266.99	-449.09	2,670.41	2,526.08	144.33	18.502	
3,000.00	2,880.87	9,417.35	4,906.37	12.00	146.07	-59.154	-2,267.01	-459.98	2,625.38	2,480.75	144.62	18.153	
3,050.00	2,927.96	9,406.53	4,906.27	12.22	145.73	-58.667	-2,267.03	-470.81	2,580.48	2,435.58	144.90	17.808	
3,100.00	2,975.05	9,395.76	4,906.16	12.44	145.40	-58.180	-2,267.04	-481.57	2,535.74	2,390.57	145.17	17.467	
3,150.00	3,022.14	9,385.06	4,906.05	12.66	145.06	-57.692	-2,267.06	-492.27	2,491.16	2,345.73	145.44	17.129	
3,200.00	3,069.23	9,374.42	4,905.93	12.89	144.73	-57.203	-2,267.08	-502.91	2,446.75	2,301.06	145.69	16.795	
3,250.00	3,116.32	9,363.84	4,905.81	13.11	144.40	-56.713	-2,267.10	-513.49	2,402.51	2,256.58	145.93	16.464	
3,300.00	3,163.41	9,358.00	4,905.74	13.33	144.21	-56.442	-2,267.11	-519.33	2,358.47	2,212.32	146.15	16.137	
3,350.00	3,210.50	9,347.03	4,905.62	13.55	143.87	-55.928	-2,267.13	-530.30	2,314.63	2,168.25	146.38	15.812	
3,400.00	3,257.59	9,339.33	4,905.54	13.78	143.63	-55.567	-2,267.14	-538.00	2,271.01	2,124.41	146.60	15.492	
3,450.00	3,304.68	9,331.55	4,905.47	14.00	143.39	-55.199	-2,267.16	-545.78	2,227.63	2,080.82	146.80	15.174	
3,500.00	3,351.76	9,323.68	4,905.41	14.22	143.14	-54.826	-2,267.17	-553.65	2,184.50	2,037.49	147.01	14.860	
3,550.00	3,398.85	9,315.72	4,905.36	14.44	142.89	-54.447	-2,267.18	-561.61	2,141.62	1,994.42	147.21	14.548	
3,600.00	3,445.94	9,307.67	4,905.31	14.67	142.64	-54.062	-2,267.20	-569.66	2,099.03	1,951.63	147.40	14.241	
3,650.00	3,493.03	9,299.00	4,905.28	14.89	142.37	-53.645	-2,267.21	-578.33	2,056.73	1,909.15	147.58	13.936	
3,700.00	3,540.12	9,299.00	4,905.28	15.11	142.37	-53.645	-2,267.21	-578.33	2,014.77	1,866.98	147.79	13.633	
3,750.00	3,587.21	9,299.00	4,905.28	15.34	142.37	-53.645	-2,267.21	-578.33	1,973.17	1,825.18	148.00	13.332	
3,800.00	3,634.30	9,278.77	4,905.26	15.56	141.73	-52.666	-2,267.27	-598.56	1,931.83	1,783.71	148.12	13.043	
3,850.00	3,681.39	9,271.64	4,905.27	15.78	141.51	-52.319	-2,267.30	-605.69	1,890.93	1,742.64	148.28	12.752	
3,900.00	3,728.48	9,264.38	4,905.30	16.01	141.28	-51.964	-2,267.33	-612.94	1,850.44	1,701.99	148.44	12.465	
3,950.00	3,775.57	9,257.00	4,905.34	16.23	141.05	-51.602	-2,267.37	-620.33	1,810.38	1,661.78	148.60	12.183	
4,000.00	3,822.66	9,249.48	4,905.40	16.45	140.82	-51.232	-2,267.41	-627.85	1,770.78	1,622.03	148.75	11.905	
4,050.00	3,869.75	9,241.83	4,905.47	16.67	140.58	-50.854	-2,267.46	-635.50	1,731.68	1,582.79	148.89	11.631	
4,100.00	3,916.84	9,234.03	4,905.55	16.90	140.33	-50.467	-2,267.52	-643.29	1,693.10	1,544.08	149.02	11.362	
4,150.00	3,963.93	9,226.10	4,905.66	17.12	140.09	-50.073	-2,267.58	-651.23	1,655.08	1,505.93	149.14	11.097	
4,200.00	4,011.02	9,218.01	4,905.78	17.34	139.83	-49.669	-2,267.66	-659.31	1,617.66	1,468.40	149.26	10.838	
4,250.00	4,058.10	9,204.00	4,906.02	17.57	139.39	-48.967	-2,267.79	-673.32	1,580.89	1,431.60	149.29	10.589	
4,300.00	4,105.19	9,199.80	4,906.10	17.79	139.26	-48.756	-2,267.84	-677.52	1,544.78	1,395.34	149.44	10.337	
4,350.00	4,152.28	9,186.50	4,906.32	18.01	138.85	-48.084	-2,267.98	-690.82	1,509.38	1,359.93	149.45	10.099	
4,400.00	4,199.37	9,173.57	4,906.49	18.24	138.44	-47.428	-2,268.12	-703.74	1,474.73	1,325.28	149.46	9.867	
4,450.00	4,246.46	9,161.01	4,906.61	18.46	138.05	-46.785	-2,268.26	-716.31	1,440.89	1,291.45	149.45	9.642	
4,500.00	4,293.55	9,148.78	4,906.69	18.68	137.67	-46.157	-2,268.40	-728.53	1,407.92	1,258.50	149.42	9.422	
4,550.00	4,340.64	9,136.89	4,906.73	18.91	137.30	-45.543	-2,268.54	-740.42	1,375.89	1,226.50	149.39	9.210	
4,600.00	4,387.73	9,125.32	4,906.74	19.13	136.93	-44.943	-2,268.67	-752.00	1,344.86	1,195.51	149.35	9.005	
4,650.00	4,434.91	9,114.47	4,906.71	19.35	136.60	-38.813	-2,268.80	-762.84	1,314.91	1,165.44	149.47	8.797	
4,700.00	4,482.67	9,107.19	4,906.68	19.57	136.37	-24.926	-2,268.89	-770.12	1,286.19	1,136.46	149.72	8.590	
4,750.00	4,530.89	9,103.77	4,906.66	19.77	136.26	-8.628	-2,268.93	-773.54	1,258.96	1,108.99	149.97	8.395	
4,800.00	4,579.34	9,104.05	4,906.66	19.95	136.27	9.237	-2,268.93	-773.26	1,233.50	1,083.23	150.27	8.208	
4,850.00	4,627.79	9,108.06	4,906.68	20.12	136.39	26.593	-2,268.88	-769.25	1,210.03	1,059.34	150.70	8.029	
4,900.00	4,676.00	9,115.54	4,906.72	20.28	136.63	41.435	-2,268.79	-761.77	1,188.77	1,037.50	151.28	7.858	
4,950.00	4,723.73	9,126.31	4,906.74	20.42	136.97	53.027	-2,268.66	-751.00	1,169.88	1,017.87	152.01	7.696	
5,000.00	4,770.75	9,140.22	4,906.72	20.54	137.40	61.666	-2,268.50	-737.09	1,153.47	1,000.57	152.90	7.544	
5,050.00	4,816.83	9,157.10	4,906.64	20.66	137.93	67.969	-2,268.30	-720.21	1,139.62	985.69	153.93	7.404	
5,100.00	4,861.74	9,176.78	4,906.45	20.76	138.54	72.500	-2,268.09	-700.54	1,128.35	973.29	155.06	7.277	
5,150.00	4,905.28	9,199.08	4,906.11	20.86	139.24	75.690	-2,267.85	-678.24	1,119.65	963.39	156.26	7.165	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 25-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	4,947.22	9,222.73	4,905.71	20.94	139.98	77.900	-2,267.61	-654.59	1,113.45	956.00	157.45	7.072	
5,250.00	4,987.37	9,249.13	4,905.40	21.01	140.81	79.293	-2,267.41	-628.20	1,109.66	951.00	158.66	6.994	
5,300.00	5,025.51	9,278.57	4,905.26	21.07	141.73	80.026	-2,267.27	-598.75	1,108.10	948.25	159.85	6.932	
5,312.93	5,035.03	9,286.67	4,905.25	21.09	141.98	80.126	-2,267.24	-590.66	1,108.03	947.89	160.15	6.919 CC	
5,350.00	5,061.48	9,312.00	4,905.33	21.13	142.77	80.202	-2,267.19	-565.33	1,108.55	947.54	161.01	6.885 ES	
5,400.00	5,095.10	9,350.12	4,905.65	21.18	143.97	79.916	-2,267.12	-527.21	1,110.69	948.56	162.12	6.851	
5,450.00	5,126.19	9,389.42	4,906.10	21.21	145.20	79.383	-2,267.06	-487.91	1,114.25	951.15	163.10	6.832	
5,500.00	5,154.62	9,430.26	4,906.48	21.25	146.48	78.654	-2,266.98	-447.07	1,119.01	955.07	163.95	6.825 SF	
5,550.00	5,180.35	9,473.29	4,906.81	21.27	147.82	77.728	-2,266.91	-404.04	1,124.73	959.97	164.76	6.826	
5,600.00	5,205.35	9,516.99	4,907.18	21.30	149.19	76.655	-2,266.83	-360.35	1,131.02	965.36	165.66	6.827	
5,650.00	5,230.35	9,560.50	4,907.56	21.33	150.56	75.595	-2,266.76	-316.83	1,137.82	971.30	166.52	6.833	
5,700.00	5,255.35	9,581.00	4,907.74	21.36	151.20	75.099	-2,266.72	-296.34	1,145.33	978.36	166.97	6.860	
5,750.00	5,280.20	9,581.00	4,907.74	21.40	151.20	74.817	-2,266.72	-296.34	1,154.74	987.83	166.91	6.918	
5,800.00	5,302.17	9,581.00	4,907.74	21.44	151.20	73.769	-2,266.72	-296.34	1,165.37	999.11	166.26	7.009	
5,850.00	5,320.15	9,581.00	4,907.74	21.48	151.20	72.639	-2,266.72	-296.34	1,176.86	1,011.37	165.49	7.111	
5,900.00	5,333.99	9,581.00	4,907.74	21.52	151.20	71.439	-2,266.72	-296.34	1,189.09	1,024.50	164.59	7.224	
5,950.00	5,343.59	9,581.00	4,907.74	21.56	151.20	70.183	-2,266.72	-296.34	1,201.95	1,038.38	163.56	7.348	
6,000.00	5,348.88	9,581.00	4,907.74	21.60	151.20	68.884	-2,266.72	-296.34	1,215.31	1,052.90	162.41	7.483	
6,050.00	5,350.00	9,581.00	4,907.74	21.64	151.20	67.936	-2,266.72	-296.34	1,229.13	1,067.57	161.56	7.608	
6,100.00	5,350.00	9,581.00	4,907.74	21.69	151.20	67.936	-2,266.72	-296.34	1,244.41	1,082.68	161.73	7.694	
6,150.00	5,350.00	9,581.00	4,907.74	21.77	151.20	67.936	-2,266.72	-296.34	1,261.50	1,099.57	161.93	7.791	
6,200.00	5,350.00	9,581.00	4,907.74	21.87	151.20	67.936	-2,266.72	-296.34	1,280.31	1,118.19	162.12	7.897	
6,250.00	5,350.00	9,581.00	4,907.74	21.99	151.20	67.936	-2,266.72	-296.34	1,300.77	1,138.43	162.33	8.013	
6,300.00	5,350.00	9,581.00	4,907.74	22.14	151.20	67.936	-2,266.72	-296.34	1,322.80	1,160.25	162.55	8.138	
6,350.00	5,350.00	9,581.00	4,907.74	22.32	151.20	67.936	-2,266.72	-296.34	1,346.33	1,183.55	162.78	8.271	
6,400.00	5,350.00	9,581.00	4,907.74	22.51	151.20	67.936	-2,266.72	-296.34	1,371.28	1,208.26	163.02	8.412	
6,450.00	5,350.00	9,581.00	4,907.74	22.74	151.20	67.936	-2,266.72	-296.34	1,397.58	1,234.31	163.27	8.560	
6,500.00	5,350.00	9,581.00	4,907.74	22.98	151.20	67.936	-2,266.72	-296.34	1,425.14	1,261.62	163.53	8.715	
6,550.00	5,350.00	9,581.00	4,907.74	23.24	151.20	67.936	-2,266.72	-296.34	1,453.91	1,290.11	163.80	8.876	
6,600.00	5,350.00	9,581.00	4,907.74	23.52	151.20	67.936	-2,266.72	-296.34	1,483.80	1,319.72	164.07	9.044	
6,650.00	5,350.00	9,581.00	4,907.74	23.81	151.20	67.936	-2,266.72	-296.34	1,514.75	1,350.39	164.36	9.216	
6,700.00	5,350.00	9,581.00	4,907.74	24.11	151.20	67.936	-2,266.72	-296.34	1,546.70	1,382.05	164.65	9.394	
6,750.00	5,350.00	9,581.00	4,907.74	24.43	151.20	67.936	-2,266.72	-296.34	1,579.58	1,414.63	164.96	9.576	
6,800.00	5,350.00	9,581.00	4,907.74	24.75	151.20	67.936	-2,266.72	-296.34	1,613.35	1,448.09	165.26	9.762	
6,850.00	5,350.00	9,581.00	4,907.74	25.09	151.20	67.936	-2,266.72	-296.34	1,647.94	1,482.36	165.58	9.952	
6,900.00	5,350.00	9,581.00	4,907.74	25.43	151.20	67.936	-2,266.72	-296.34	1,683.30	1,517.40	165.90	10.146	
6,950.00	5,350.00	9,581.00	4,907.74	25.79	151.20	67.936	-2,266.72	-296.34	1,719.39	1,553.16	166.23	10.343	
7,000.00	5,350.00	9,581.00	4,907.74	26.15	151.20	67.936	-2,266.72	-296.34	1,756.17	1,589.60	166.57	10.543	
7,050.00	5,350.00	9,581.00	4,907.74	26.52	151.20	67.936	-2,266.72	-296.34	1,793.58	1,626.67	166.91	10.746	
7,100.00	5,350.00	9,581.00	4,907.74	26.89	151.20	67.936	-2,266.72	-296.34	1,831.60	1,664.34	167.26	10.951	
7,150.00	5,350.00	9,581.00	4,907.74	27.28	151.20	67.936	-2,266.72	-296.34	1,870.17	1,702.56	167.62	11.157	
7,200.00	5,350.00	9,581.00	4,907.74	27.67	151.20	67.936	-2,266.72	-296.34	1,909.28	1,741.31	167.97	11.367	
7,250.00	5,350.00	9,581.00	4,907.74	28.07	151.20	67.936	-2,266.72	-296.34	1,948.89	1,780.55	168.34	11.577	
7,300.00	5,350.00	9,581.00	4,907.74	28.47	151.20	67.936	-2,266.72	-296.34	1,988.96	1,820.25	168.71	11.789	
7,350.00	5,350.00	9,581.00	4,907.74	28.88	151.20	67.936	-2,266.72	-296.34	2,029.48	1,860.39	169.09	12.003	
7,400.00	5,350.00	9,581.00	4,907.74	29.29	151.20	67.936	-2,266.72	-296.34	2,070.41	1,900.94	169.47	12.217	
7,450.00	5,350.00	9,581.00	4,907.74	29.71	151.20	67.936	-2,266.72	-296.34	2,111.73	1,941.88	169.85	12.433	
7,500.00	5,350.00	9,581.00	4,907.74	30.13	151.20	67.936	-2,266.72	-296.34	2,153.42	1,983.18	170.24	12.649	
7,550.00	5,350.00	9,581.00	4,907.74	30.56	151.20	67.936	-2,266.72	-296.34	2,195.46	2,024.82	170.63	12.866	
7,600.00	5,350.00	9,581.00	4,907.74	30.99	151.20	67.936	-2,266.72	-296.34	2,237.82	2,066.79	171.03	13.084	
7,650.00	5,350.00	9,581.00	4,907.74	31.43	151.20	67.936	-2,266.72	-296.34	2,280.49	2,109.06	171.43	13.302	
7,700.00	5,350.00	9,581.00	4,907.74	31.87	151.20	67.936	-2,266.72	-296.34	2,323.46	2,151.62	171.84	13.521	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 25-MWD+IGRF												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	9,581.00	4,907.74	32.31	151.20	67.936	-2,266.72	-296.34	2,366.70	2,194.45	172.25	13.740	
7,800.00	5,350.00	9,581.00	4,907.74	32.76	151.20	67.936	-2,266.72	-296.34	2,410.20	2,237.54	172.66	13.959	
7,850.00	5,350.00	9,581.00	4,907.74	33.21	151.20	67.936	-2,266.72	-296.34	2,453.95	2,280.88	173.07	14.179	
7,900.00	5,350.00	9,581.00	4,907.74	33.66	151.20	67.936	-2,266.72	-296.34	2,497.94	2,324.45	173.49	14.398	
7,950.00	5,350.00	9,581.00	4,907.74	34.12	151.20	67.936	-2,266.72	-296.34	2,542.14	2,368.23	173.91	14.617	
8,000.00	5,350.00	9,581.00	4,907.74	34.58	151.20	67.936	-2,266.72	-296.34	2,586.56	2,412.22	174.34	14.836	
8,050.00	5,350.00	9,581.00	4,907.74	35.05	151.20	67.936	-2,266.72	-296.34	2,631.18	2,456.41	174.77	15.055	
8,100.00	5,350.00	9,581.00	4,907.74	35.51	151.20	67.936	-2,266.72	-296.34	2,675.99	2,500.79	175.20	15.274	
8,150.00	5,350.00	9,581.00	4,907.74	35.98	151.20	67.936	-2,266.72	-296.34	2,720.98	2,545.35	175.63	15.493	
8,200.00	5,350.00	9,581.00	4,907.74	36.46	151.20	67.936	-2,266.72	-296.34	2,766.14	2,590.08	176.06	15.711	
8,250.00	5,350.00	9,581.00	4,907.74	36.93	151.20	67.936	-2,266.72	-296.34	2,811.47	2,634.96	176.50	15.929	
8,300.00	5,350.00	9,581.00	4,907.74	37.41	151.20	67.936	-2,266.72	-296.34	2,856.95	2,680.01	176.94	16.146	
8,350.00	5,350.00	9,581.00	4,907.74	37.89	151.20	67.936	-2,266.72	-296.34	2,902.58	2,725.19	177.39	16.363	
8,400.00	5,350.00	9,581.00	4,907.74	38.37	151.20	67.936	-2,266.72	-296.34	2,948.35	2,770.52	177.83	16.580	
8,450.00	5,350.00	9,581.00	4,907.74	38.86	151.20	67.936	-2,266.72	-296.34	2,994.26	2,815.98	178.28	16.795	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 4280-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,000.00	2,880.87	9,232.00	4,811.94	12.00	143.39	-52.169	-2,875.90	-432.84	2,987.25	2,841.89	145.36	20.551	
3,050.00	2,927.96	9,232.00	4,811.94	12.22	143.39	-52.169	-2,875.90	-432.84	2,946.71	2,801.14	145.57	20.243	
3,100.00	2,975.05	9,223.45	4,812.10	12.44	143.12	-51.907	-2,875.86	-441.38	2,906.45	2,760.78	145.67	19.952	
3,150.00	3,022.14	9,212.58	4,812.31	12.66	142.78	-51.571	-2,875.80	-452.26	2,866.46	2,720.71	145.75	19.668	
3,200.00	3,069.23	9,201.70	4,812.52	12.89	142.43	-51.235	-2,875.75	-463.13	2,826.74	2,680.93	145.81	19.386	
3,250.00	3,116.32	9,190.82	4,812.73	13.11	142.09	-50.897	-2,875.69	-474.01	2,787.32	2,641.44	145.87	19.108	
3,300.00	3,163.41	9,179.94	4,812.94	13.33	141.75	-50.558	-2,875.63	-484.88	2,748.19	2,602.26	145.93	18.832	
3,350.00	3,210.50	9,173.00	4,813.07	13.55	141.53	-50.342	-2,875.60	-491.83	2,709.38	2,563.35	146.04	18.553	
3,400.00	3,257.59	9,162.07	4,813.28	13.78	141.19	-49.999	-2,875.55	-502.75	2,670.91	2,524.82	146.08	18.283	
3,450.00	3,304.68	9,154.01	4,813.43	14.00	140.93	-49.746	-2,875.53	-510.81	2,632.79	2,486.62	146.17	18.012	
3,500.00	3,351.76	9,145.93	4,813.59	14.22	140.68	-49.491	-2,875.51	-518.89	2,595.04	2,448.79	146.25	17.744	
3,550.00	3,398.85	9,136.07	4,813.78	14.44	140.37	-49.179	-2,875.51	-528.75	2,557.67	2,411.37	146.30	17.482	
3,600.00	3,445.94	9,123.48	4,814.02	14.67	139.97	-48.780	-2,875.50	-541.34	2,520.69	2,374.39	146.30	17.229	
3,650.00	3,493.03	9,110.89	4,814.27	14.89	139.57	-48.380	-2,875.48	-553.92	2,484.11	2,337.82	146.29	16.980	
3,700.00	3,540.12	9,098.31	4,814.52	15.11	139.18	-47.978	-2,875.44	-566.50	2,447.95	2,301.67	146.28	16.735	
3,750.00	3,587.21	9,085.73	4,814.77	15.34	138.78	-47.576	-2,875.40	-579.08	2,412.23	2,265.97	146.26	16.493	
3,800.00	3,634.30	9,073.16	4,815.03	15.56	138.39	-47.172	-2,875.34	-591.65	2,376.97	2,230.73	146.23	16.255	
3,850.00	3,681.39	9,060.59	4,815.29	15.78	137.99	-46.767	-2,875.27	-604.22	2,342.18	2,195.98	146.19	16.021	
3,900.00	3,728.48	9,048.02	4,815.55	16.01	137.60	-46.362	-2,875.19	-616.78	2,307.89	2,161.74	146.15	15.791	
3,950.00	3,775.57	9,036.28	4,815.79	16.23	137.23	-45.981	-2,875.11	-628.52	2,274.12	2,128.01	146.12	15.564	
4,000.00	3,822.66	9,024.72	4,816.03	16.45	136.86	-45.606	-2,875.03	-640.08	2,240.91	2,094.83	146.08	15.340	
4,050.00	3,869.75	9,013.18	4,816.27	16.67	136.50	-45.230	-2,874.94	-651.61	2,208.27	2,062.23	146.04	15.121	
4,100.00	3,916.84	9,001.67	4,816.50	16.90	136.14	-44.854	-2,874.85	-663.12	2,176.23	2,030.24	145.99	14.907	
4,150.00	3,963.93	8,990.19	4,816.73	17.12	135.77	-44.479	-2,874.76	-674.60	2,144.82	1,998.89	145.94	14.697	
4,200.00	4,011.02	8,978.74	4,816.96	17.34	135.41	-44.103	-2,874.67	-686.05	2,114.07	1,968.20	145.88	14.492	
4,250.00	4,058.10	8,967.31	4,817.18	17.57	135.05	-43.727	-2,874.57	-697.47	2,084.01	1,938.20	145.81	14.293	
4,300.00	4,105.19	8,955.91	4,817.40	17.79	134.69	-43.352	-2,874.48	-708.87	2,054.66	1,908.92	145.74	14.098	
4,350.00	4,152.28	8,944.99	4,817.61	18.01	134.35	-42.991	-2,874.38	-719.79	2,026.06	1,880.38	145.67	13.908	
4,400.00	4,199.37	8,934.39	4,817.82	18.24	134.02	-42.640	-2,874.29	-730.39	1,998.24	1,852.63	145.61	13.723	
4,450.00	4,246.46	8,923.75	4,818.03	18.46	133.68	-42.288	-2,874.20	-741.02	1,971.25	1,825.70	145.54	13.544	
4,500.00	4,293.55	8,913.08	4,818.25	18.68	133.35	-41.934	-2,874.10	-751.69	1,945.10	1,799.63	145.47	13.371	
4,550.00	4,340.64	8,902.37	4,818.47	18.91	133.01	-41.578	-2,874.01	-762.39	1,919.84	1,774.45	145.38	13.205	
4,600.00	4,387.73	8,891.63	4,818.70	19.13	132.67	-41.220	-2,873.92	-773.13	1,895.50	1,750.20	145.30	13.046	
4,650.00	4,434.91	8,881.23	4,818.92	19.35	132.34	-35.722	-2,873.83	-783.53	1,872.13	1,726.79	145.34	12.881	
4,700.00	4,482.67	8,873.68	4,819.09	19.57	132.10	-22.800	-2,873.76	-791.08	1,849.96	1,704.38	145.57	12.708	
4,750.00	4,530.89	8,869.49	4,819.18	19.77	131.97	-7.316	-2,873.72	-795.26	1,829.18	1,683.30	145.89	12.538	
4,800.00	4,579.34	8,868.70	4,819.20	19.95	131.95	9.889	-2,873.72	-796.06	1,809.99	1,663.69	146.30	12.372	
4,850.00	4,627.79	8,871.33	4,819.14	20.12	132.03	26.742	-2,873.74	-793.43	1,792.52	1,645.70	146.82	12.209	
4,900.00	4,676.00	8,877.38	4,819.01	20.28	132.22	41.218	-2,873.79	-787.38	1,776.90	1,629.44	147.46	12.050	
4,950.00	4,723.73	8,886.84	4,818.80	20.42	132.52	52.567	-2,873.87	-777.92	1,763.22	1,615.00	148.22	11.896	
5,000.00	4,770.75	8,899.69	4,818.53	20.54	132.92	61.071	-2,873.99	-765.08	1,751.54	1,602.44	149.10	11.748	
5,050.00	4,816.83	8,915.87	4,818.19	20.66	133.43	67.333	-2,874.13	-748.90	1,741.88	1,591.81	150.07	11.607	
5,100.00	4,861.74	8,935.32	4,817.80	20.76	134.05	71.905	-2,874.30	-729.45	1,734.23	1,583.11	151.13	11.475	
5,150.00	4,905.28	8,958.16	4,817.36	20.86	134.77	75.201	-2,874.50	-706.62	1,728.55	1,576.30	152.25	11.353	
5,200.00	4,947.22	8,984.53	4,816.84	20.94	135.60	77.518	-2,874.72	-680.25	1,724.75	1,571.32	153.43	11.241	
5,250.00	4,987.37	9,013.82	4,816.25	21.01	136.52	79.086	-2,874.95	-650.97	1,722.74	1,568.11	154.63	11.141	
5,286.34	5,015.30	9,036.86	4,815.78	21.06	137.24	79.850	-2,875.12	-627.93	1,722.32	1,566.83	155.49	11.077	CC
5,300.00	5,025.51	9,045.89	4,815.59	21.07	137.53	80.067	-2,875.18	-618.91	1,722.38	1,566.56	155.82	11.054	
5,350.00	5,061.48	9,084.67	4,814.79	21.13	138.75	80.488	-2,875.40	-580.14	1,723.48	1,566.39	157.09	10.971	ES
5,400.00	5,095.10	9,126.29	4,813.97	21.18	140.06	80.548	-2,875.50	-538.53	1,725.85	1,567.52	158.33	10.900	
5,450.00	5,126.19	9,161.10	4,813.30	21.21	141.16	80.523	-2,875.54	-503.73	1,729.36	1,570.07	159.29	10.857	
5,500.00	5,154.62	9,198.35	4,812.58	21.25	142.33	80.257	-2,875.73	-466.49	1,734.03	1,573.82	160.21	10.823	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 4280-MWD+IGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,550.00	5,180.35	9,232.00	4,811.94	21.27	143.39	79.856	-2,875.90	-432.84	1,739.58	1,578.56	161.02	10.803 SF	
5,600.00	5,205.35	9,232.00	4,811.94	21.30	143.39	79.856	-2,875.90	-432.84	1,746.33	1,585.19	161.14	10.838	
5,650.00	5,230.35	9,232.00	4,811.94	21.33	143.39	79.856	-2,875.90	-432.84	1,754.47	1,593.20	161.27	10.879	
5,700.00	5,255.35	9,232.00	4,811.94	21.36	143.39	79.856	-2,875.90	-432.84	1,763.99	1,602.60	161.40	10.930	
5,750.00	5,280.20	9,232.00	4,811.94	21.40	143.39	79.533	-2,875.90	-432.84	1,774.84	1,613.43	161.41	10.996	
5,800.00	5,302.17	9,232.00	4,811.94	21.44	143.39	78.362	-2,875.90	-432.84	1,786.44	1,625.39	161.06	11.092	
5,850.00	5,320.15	9,232.00	4,811.94	21.48	143.39	77.147	-2,875.90	-432.84	1,798.51	1,637.89	160.62	11.197	
5,900.00	5,333.99	9,232.00	4,811.94	21.52	143.39	75.899	-2,875.90	-432.84	1,810.94	1,650.84	160.10	11.311	
5,950.00	5,343.59	9,232.00	4,811.94	21.56	143.39	74.629	-2,875.90	-432.84	1,823.64	1,664.14	159.50	11.434	
6,000.00	5,348.88	9,232.00	4,811.94	21.60	143.39	73.350	-2,875.90	-432.84	1,836.50	1,677.68	158.82	11.564	
6,050.00	5,350.00	9,232.00	4,811.94	21.64	143.39	72.436	-2,875.90	-432.84	1,849.47	1,691.14	158.33	11.681	
6,100.00	5,350.00	9,232.00	4,811.94	21.69	143.39	72.436	-2,875.90	-432.84	1,863.38	1,704.88	158.51	11.756	
6,150.00	5,350.00	9,232.00	4,811.94	21.77	143.39	72.436	-2,875.90	-432.84	1,878.52	1,719.82	158.70	11.837	
6,200.00	5,350.00	9,232.00	4,811.94	21.87	143.39	72.436	-2,875.90	-432.84	1,894.86	1,735.96	158.90	11.925	
6,250.00	5,350.00	9,232.00	4,811.94	21.99	143.39	72.436	-2,875.90	-432.84	1,912.36	1,753.25	159.12	12.019	
6,300.00	5,350.00	9,232.00	4,811.94	22.14	143.39	72.436	-2,875.90	-432.84	1,931.00	1,771.67	159.33	12.119	
6,350.00	5,350.00	9,232.00	4,811.94	22.32	143.39	72.436	-2,875.90	-432.84	1,950.75	1,791.18	159.57	12.225	
6,400.00	5,350.00	9,232.00	4,811.94	22.51	143.39	72.436	-2,875.90	-432.84	1,971.56	1,811.75	159.81	12.337	
6,450.00	5,350.00	9,232.00	4,811.94	22.74	143.39	72.436	-2,875.90	-432.84	1,993.42	1,833.35	160.07	12.453	
6,500.00	5,350.00	9,232.00	4,811.94	22.98	143.39	72.436	-2,875.90	-432.84	2,016.27	1,855.94	160.33	12.576	
6,550.00	5,350.00	9,232.00	4,811.94	23.24	143.39	72.436	-2,875.90	-432.84	2,040.10	1,879.49	160.61	12.702	
6,600.00	5,350.00	9,232.00	4,811.94	23.52	143.39	72.436	-2,875.90	-432.84	2,064.86	1,903.97	160.89	12.834	
6,650.00	5,350.00	9,232.00	4,811.94	23.81	143.39	72.436	-2,875.90	-432.84	2,090.52	1,929.34	161.18	12.970	
6,700.00	5,350.00	9,232.00	4,811.94	24.11	143.39	72.436	-2,875.90	-432.84	2,117.06	1,955.58	161.48	13.110	
6,750.00	5,350.00	9,232.00	4,811.94	24.43	143.39	72.436	-2,875.90	-432.84	2,144.43	1,982.64	161.79	13.254	
6,800.00	5,350.00	9,232.00	4,811.94	24.75	143.39	72.436	-2,875.90	-432.84	2,172.61	2,010.50	162.10	13.403	
6,850.00	5,350.00	9,232.00	4,811.94	25.09	143.39	72.436	-2,875.90	-432.84	2,201.56	2,039.13	162.43	13.554	
6,900.00	5,350.00	9,232.00	4,811.94	25.43	143.39	72.436	-2,875.90	-432.84	2,231.26	2,068.50	162.76	13.709	
6,950.00	5,350.00	9,232.00	4,811.94	25.79	143.39	72.436	-2,875.90	-432.84	2,261.67	2,098.57	163.10	13.867	
7,000.00	5,350.00	9,232.00	4,811.94	26.15	143.39	72.436	-2,875.90	-432.84	2,292.77	2,129.33	163.44	14.028	
7,050.00	5,350.00	9,232.00	4,811.94	26.52	143.39	72.436	-2,875.90	-432.84	2,324.53	2,160.74	163.79	14.192	
7,100.00	5,350.00	9,232.00	4,811.94	26.89	143.39	72.436	-2,875.90	-432.84	2,356.92	2,192.77	164.15	14.358	
7,150.00	5,350.00	9,232.00	4,811.94	27.28	143.39	72.436	-2,875.90	-432.84	2,389.92	2,225.41	164.51	14.527	
7,200.00	5,350.00	9,232.00	4,811.94	27.67	143.39	72.436	-2,875.90	-432.84	2,423.50	2,258.62	164.88	14.698	
7,250.00	5,350.00	9,232.00	4,811.94	28.07	143.39	72.436	-2,875.90	-432.84	2,457.64	2,292.39	165.26	14.872	
7,300.00	5,350.00	9,232.00	4,811.94	28.47	143.39	72.436	-2,875.90	-432.84	2,492.32	2,326.68	165.64	15.047	
7,350.00	5,350.00	9,232.00	4,811.94	28.88	143.39	72.436	-2,875.90	-432.84	2,527.51	2,361.49	166.02	15.224	
7,400.00	5,350.00	9,232.00	4,811.94	29.29	143.39	72.436	-2,875.90	-432.84	2,563.19	2,396.78	166.41	15.403	
7,450.00	5,350.00	9,232.00	4,811.94	29.71	143.39	72.436	-2,875.90	-432.84	2,599.34	2,432.54	166.81	15.583	
7,500.00	5,350.00	9,232.00	4,811.94	30.13	143.39	72.436	-2,875.90	-432.84	2,635.95	2,468.75	167.20	15.765	
7,550.00	5,350.00	9,232.00	4,811.94	30.56	143.39	72.436	-2,875.90	-432.84	2,672.99	2,505.38	167.61	15.948	
7,600.00	5,350.00	9,232.00	4,811.94	30.99	143.39	72.436	-2,875.90	-432.84	2,710.45	2,542.43	168.02	16.132	
7,650.00	5,350.00	9,232.00	4,811.94	31.43	143.39	72.436	-2,875.90	-432.84	2,748.30	2,579.87	168.43	16.317	
7,700.00	5,350.00	9,232.00	4,811.94	31.87	143.39	72.436	-2,875.90	-432.84	2,786.54	2,617.70	168.84	16.504	
7,750.00	5,350.00	9,232.00	4,811.94	32.31	143.39	72.436	-2,875.90	-432.84	2,825.15	2,655.88	169.26	16.691	
7,800.00	5,350.00	9,232.00	4,811.94	32.76	143.39	72.436	-2,875.90	-432.84	2,864.11	2,694.42	169.69	16.879	
7,850.00	5,350.00	9,232.00	4,811.94	33.21	143.39	72.436	-2,875.90	-432.84	2,903.40	2,733.29	170.11	17.067	
7,900.00	5,350.00	9,232.00	4,811.94	33.66	143.39	72.436	-2,875.90	-432.84	2,943.02	2,772.48	170.54	17.257	
7,950.00	5,350.00	9,232.00	4,811.94	34.12	143.39	72.436	-2,875.90	-432.84	2,982.96	2,811.98	170.98	17.447	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	24.00	0.00	0.00	-119.691	-238.56	-418.39	482.22				
50.00	50.00	26.00	50.00	0.05	0.51	-119.691	-238.56	-418.39	481.62	481.06	0.57	852.273	
100.00	100.00	76.00	100.00	0.14	1.49	-119.691	-238.56	-418.39	481.62	479.99	1.64	294.021	
150.00	150.00	126.00	150.00	0.32	2.48	-119.691	-238.56	-418.39	481.62	478.82	2.80	171.970	
200.00	200.00	176.00	200.00	0.50	3.46	-119.691	-238.56	-418.39	481.62	477.66	3.96	121.524	
250.00	250.00	226.00	250.00	0.68	4.44	-119.691	-238.56	-418.39	481.62	476.50	5.13	93.961	
300.00	300.00	276.00	300.00	0.86	5.43	-119.691	-238.56	-418.39	481.62	475.34	6.29	76.590	
350.00	350.00	326.00	350.00	1.03	6.94	23.635	-238.56	-418.39	481.22	473.25	7.97	60.349	
400.00	399.98	375.98	399.98	1.21	8.94	23.707	-238.56	-418.39	480.02	469.88	10.15	47.310	
450.00	449.93	425.93	449.93	1.38	10.94	23.829	-238.56	-418.39	478.03	465.72	12.31	38.824	
500.00	499.84	475.84	499.84	1.55	12.93	24.000	-238.56	-418.39	475.24	460.77	14.47	32.840	
550.00	549.68	525.68	549.68	1.73	14.93	24.223	-238.56	-418.39	471.65	455.03	16.62	28.371	
600.00	599.45	575.45	599.45	1.90	16.92	24.500	-238.56	-418.39	467.29	448.52	18.76	24.902	
650.00	649.13	625.13	649.13	2.08	18.91	24.835	-238.56	-418.39	462.14	441.24	20.89	22.118	
700.00	698.70	674.70	698.70	2.26	20.89	25.229	-238.56	-418.39	456.21	433.21	23.01	19.829	
750.00	748.15	724.15	748.15	2.44	22.87	25.688	-238.56	-418.39	449.53	424.42	25.10	17.906	
800.00	797.47	773.47	797.47	2.62	24.84	26.217	-238.56	-418.39	442.09	414.90	27.18	16.263	
850.00	846.63	822.63	846.63	2.80	26.81	26.821	-238.56	-418.39	433.91	404.66	29.24	14.837	
900.00	895.62	871.62	895.62	2.99	28.76	27.509	-238.56	-418.39	425.00	393.72	31.28	13.586	
950.00	944.44	920.44	944.44	3.18	30.72	28.287	-238.56	-418.39	415.39	382.09	33.30	12.474	
1,000.00	993.06	969.06	993.06	3.37	32.66	29.167	-238.56	-418.39	405.09	369.79	35.30	11.476	
1,050.00	1,041.46	1,017.46	1,041.46	3.56	34.60	30.160	-238.56	-418.39	394.12	356.85	37.28	10.573	
1,100.00	1,089.64	1,065.64	1,089.64	3.76	36.53	31.279	-238.56	-418.39	382.53	343.29	39.24	9.750	
1,150.00	1,137.58	1,113.58	1,137.58	3.96	38.44	32.542	-238.56	-418.39	370.33	329.16	41.18	8.993	
1,200.00	1,185.27	1,161.27	1,185.27	4.16	40.35	33.966	-238.56	-418.39	357.59	314.48	43.11	8.295	
1,250.00	1,232.68	1,208.68	1,232.68	4.36	42.25	35.576	-238.56	-418.39	344.33	299.30	45.03	7.646	
1,300.00	1,279.83	1,255.83	1,279.83	4.57	44.13	37.329	-238.56	-418.39	330.68	283.67	47.01	7.035	
1,350.00	1,326.92	1,302.92	1,326.92	4.78	46.02	39.129	-238.56	-418.39	317.18	268.08	49.10	6.460	
1,400.00	1,374.01	1,350.01	1,374.01	4.99	47.90	41.080	-238.56	-418.39	304.01	252.80	51.21	5.936	
1,450.00	1,421.10	1,397.10	1,421.10	5.20	49.78	43.195	-238.56	-418.39	291.21	237.87	53.34	5.459	
1,500.00	1,468.19	1,444.19	1,468.19	5.41	51.67	45.491	-238.56	-418.39	278.84	223.35	55.49	5.025	
1,550.00	1,515.28	1,491.28	1,515.28	5.63	53.55	47.983	-238.56	-418.39	266.95	209.28	57.67	4.629	
1,600.00	1,562.37	1,538.37	1,562.37	5.84	55.43	50.687	-238.56	-418.39	255.62	195.75	59.87	4.269	
1,650.00	1,609.46	1,585.46	1,609.46	6.06	57.32	53.618	-238.56	-418.39	244.92	182.82	62.10	3.944	
1,700.00	1,656.55	1,632.55	1,656.55	6.27	59.20	56.787	-238.56	-418.39	234.94	170.59	64.35	3.651	
1,750.00	1,703.64	1,679.64	1,703.64	6.49	61.09	60.203	-238.56	-418.39	225.76	159.15	66.62	3.389	
1,800.00	1,750.73	1,726.73	1,750.73	6.71	62.97	63.869	-238.56	-418.39	217.50	148.61	68.90	3.157	
1,850.00	1,797.82	1,773.82	1,797.82	6.93	64.85	67.780	-238.56	-418.39	210.27	139.08	71.19	2.954	
1,900.00	1,844.91	1,820.91	1,844.91	7.14	66.74	71.922	-238.56	-418.39	204.16	130.69	73.47	2.779	
1,950.00	1,892.00	1,868.00	1,892.00	7.36	68.62	76.269	-238.56	-418.39	199.29	123.55	75.74	2.631	
2,000.00	1,939.08	1,915.08	1,939.08	7.58	70.50	80.782	-238.56	-418.39	195.75	117.77	77.97	2.510	
2,050.00	1,986.17	1,962.17	1,986.17	7.80	72.39	85.414	-238.56	-418.39	193.60	113.44	80.16	2.415	
2,098.87	2,032.20	2,008.20	2,032.20	8.01	74.23	90.000	-238.56	-418.39	192.90	110.66	82.24	2.346 CC	
2,100.00	2,033.26	2,009.26	2,033.26	8.02	74.27	90.107	-238.56	-418.39	192.90	110.62	82.29	2.344	
2,150.00	2,080.35	2,056.35	2,080.35	8.24	76.15	94.798	-238.56	-418.39	193.67	109.32	84.35	2.296 ES	
2,200.00	2,127.44	2,103.44	2,127.44	8.46	78.04	99.425	-238.56	-418.39	195.88	109.53	86.35	2.269	
2,250.00	2,174.53	2,150.53	2,174.53	8.68	79.92	103.932	-238.56	-418.39	199.48	111.21	88.27	2.260 SF	
2,300.00	2,221.62	2,197.62	2,221.62	8.90	81.80	108.271	-238.56	-418.39	204.41	114.27	90.14	2.268	
2,350.00	2,268.71	2,244.71	2,268.71	9.12	83.69	112.402	-238.56	-418.39	210.57	118.61	91.96	2.290	
2,400.00	2,315.80	2,291.80	2,315.80	9.34	85.57	116.303	-238.56	-418.39	217.86	124.11	93.75	2.324	
2,450.00	2,362.89	2,338.89	2,362.89	9.56	87.46	119.958	-238.56	-418.39	226.16	130.66	95.50	2.368	
2,500.00	2,409.98	2,385.98	2,409.98	9.78	89.34	123.362	-238.56	-418.39	235.37	138.13	97.24	2.421	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,550.00	2,457.07	2,433.07	2,457.07	10.00	91.22	126.520	-238.56	-418.39	245.39	146.42	98.97	2.479	
2,600.00	2,504.16	2,480.16	2,504.16	10.22	93.11	129.440	-238.56	-418.39	256.12	155.42	100.70	2.543	
2,650.00	2,551.25	2,527.25	2,551.25	10.44	94.99	132.134	-238.56	-418.39	267.48	165.04	102.44	2.611	
2,700.00	2,598.34	2,574.34	2,598.34	10.67	96.87	134.617	-238.56	-418.39	279.39	175.21	104.18	2.682	
2,750.00	2,645.42	2,621.42	2,645.42	10.89	98.76	136.905	-238.56	-418.39	291.78	185.85	105.94	2.754	
2,800.00	2,692.51	2,668.51	2,692.51	11.11	100.64	139.012	-238.56	-418.39	304.60	196.90	107.70	2.828	
2,850.00	2,739.60	2,715.60	2,739.60	11.33	102.52	140.956	-238.56	-418.39	317.79	208.31	109.48	2.903	
2,900.00	2,786.69	2,762.69	2,786.69	11.55	104.41	142.749	-238.56	-418.39	331.30	220.03	111.27	2.978	
2,950.00	2,833.78	2,809.78	2,833.78	11.77	106.29	144.406	-238.56	-418.39	345.11	232.04	113.07	3.052	
3,000.00	2,880.87	2,856.87	2,880.87	12.00	108.17	145.939	-238.56	-418.39	359.17	244.29	114.88	3.126	
3,050.00	2,927.96	2,903.96	2,927.96	12.22	110.06	147.360	-238.56	-418.39	373.46	256.75	116.71	3.200	
3,100.00	2,975.05	2,951.05	2,975.05	12.44	111.94	148.678	-238.56	-418.39	387.95	269.41	118.54	3.273	
3,150.00	3,022.14	2,998.14	3,022.14	12.66	113.83	149.904	-238.56	-418.39	402.62	282.24	120.38	3.345	
3,200.00	3,069.23	3,045.23	3,069.23	12.89	115.71	151.046	-238.56	-418.39	417.46	295.22	122.24	3.415	
3,250.00	3,116.32	3,092.32	3,116.32	13.11	117.59	152.111	-238.56	-418.39	432.43	308.34	124.10	3.485	
3,300.00	3,163.41	3,139.41	3,163.41	13.33	119.48	153.106	-238.56	-418.39	447.54	321.58	125.96	3.553	
3,350.00	3,210.50	3,186.50	3,210.50	13.55	121.36	154.037	-238.56	-418.39	462.77	334.93	127.84	3.620	
3,400.00	3,257.59	3,233.59	3,257.59	13.78	123.24	154.910	-238.56	-418.39	478.10	348.38	129.72	3.686	
3,450.00	3,304.68	3,242.00	3,266.00	14.00	123.58	155.060	-238.56	-418.39	495.04	364.83	130.21	3.802	
3,500.00	3,351.76	3,242.00	3,266.00	14.22	123.58	155.060	-238.56	-418.39	516.22	385.82	130.40	3.959	
3,550.00	3,398.85	3,242.00	3,266.00	14.44	123.58	155.060	-238.56	-418.39	541.20	410.61	130.59	4.144	
3,600.00	3,445.94	3,242.00	3,266.00	14.67	123.58	155.060	-238.56	-418.39	569.48	438.70	130.78	4.354	
3,650.00	3,493.03	3,242.00	3,266.00	14.89	123.58	155.060	-238.56	-418.39	600.60	469.63	130.97	4.586	
3,700.00	3,540.12	3,242.00	3,266.00	15.11	123.58	155.060	-238.56	-418.39	634.15	502.98	131.16	4.835	
3,750.00	3,587.21	3,242.00	3,266.00	15.34	123.58	155.060	-238.56	-418.39	669.74	538.39	131.36	5.099	
3,800.00	3,634.30	3,242.00	3,266.00	15.56	123.58	155.060	-238.56	-418.39	707.09	575.54	131.55	5.375	
3,850.00	3,681.39	3,242.00	3,266.00	15.78	123.58	155.060	-238.56	-418.39	745.91	614.18	131.74	5.662	
3,900.00	3,728.48	3,242.00	3,266.00	16.01	123.58	155.060	-238.56	-418.39	786.00	654.07	131.93	5.958	
3,950.00	3,775.57	3,242.00	3,266.00	16.23	123.58	155.060	-238.56	-418.39	827.17	695.05	132.12	6.261	
4,000.00	3,822.66	3,242.00	3,266.00	16.45	123.58	155.060	-238.56	-418.39	869.27	736.96	132.31	6.570	
4,050.00	3,869.75	3,242.00	3,266.00	16.67	123.58	155.060	-238.56	-418.39	912.17	779.66	132.50	6.884	
4,100.00	3,916.84	3,242.00	3,266.00	16.90	123.58	155.060	-238.56	-418.39	955.75	823.06	132.69	7.203	
4,150.00	3,963.93	3,242.00	3,266.00	17.12	123.58	155.060	-238.56	-418.39	999.94	867.05	132.89	7.525	
4,200.00	4,011.02	3,242.00	3,266.00	17.34	123.58	155.060	-238.56	-418.39	1,044.65	911.57	133.08	7.850	
4,250.00	4,058.10	3,242.00	3,266.00	17.57	123.58	155.060	-238.56	-418.39	1,089.82	956.55	133.27	8.178	
4,300.00	4,105.19	3,242.00	3,266.00	17.79	123.58	155.060	-238.56	-418.39	1,135.40	1,001.94	133.46	8.507	
4,350.00	4,152.28	3,242.00	3,266.00	18.01	123.58	155.060	-238.56	-418.39	1,181.33	1,047.68	133.65	8.839	
4,400.00	4,199.37	3,242.00	3,266.00	18.24	123.58	155.060	-238.56	-418.39	1,227.58	1,093.74	133.84	9.172	
4,450.00	4,246.46	3,242.00	3,266.00	18.46	123.58	155.060	-238.56	-418.39	1,274.12	1,140.08	134.04	9.506	
4,500.00	4,293.55	3,242.00	3,266.00	18.68	123.58	155.060	-238.56	-418.39	1,320.90	1,186.68	134.23	9.841	
4,550.00	4,340.64	3,242.00	3,266.00	18.91	123.58	155.060	-238.56	-418.39	1,367.92	1,233.50	134.42	10.177	
4,600.00	4,387.73	3,242.00	3,266.00	19.13	123.58	155.060	-238.56	-418.39	1,415.14	1,280.53	134.61	10.513	
4,650.00	4,434.91	3,242.00	3,266.00	19.35	123.58	164.475	-238.56	-418.39	1,462.50	1,327.82	134.68	10.859	
4,700.00	4,482.67	3,242.00	3,266.00	19.57	123.58	-174.949	-238.56	-418.39	1,509.63	1,373.94	135.69	11.126	
4,750.00	4,530.89	3,242.00	3,266.00	19.77	123.58	-153.224	-238.56	-418.39	1,556.29	1,418.86	137.43	11.324	
4,800.00	4,579.34	3,242.00	3,266.00	19.95	123.58	-131.067	-238.56	-418.39	1,602.30	1,463.17	139.13	11.516	
4,850.00	4,627.79	3,242.00	3,266.00	20.12	123.58	-110.289	-238.56	-418.39	1,647.50	1,507.20	140.31	11.742	
4,900.00	4,676.00	3,242.00	3,266.00	20.28	123.58	-92.643	-238.56	-418.39	1,691.76	1,551.01	140.74	12.020	
4,950.00	4,723.73	3,242.00	3,266.00	20.42	123.58	-78.653	-238.56	-418.39	1,734.92	1,594.54	140.37	12.359	
5,000.00	4,770.75	3,242.00	3,266.00	20.54	123.58	-67.863	-238.56	-418.39	1,776.87	1,637.67	139.21	12.764	
5,050.00	4,816.83	3,242.00	3,266.00	20.66	123.58	-59.544	-238.56	-418.39	1,817.50	1,680.22	137.28	13.240	
5,100.00	4,861.74	3,242.00	3,266.00	20.76	123.58	-53.053	-238.56	-418.39	1,856.69	1,722.06	134.63	13.791	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	3,242.00	3,266.00	20.86	123.58	-47.910	-238.56	-418.39	1,894.36	1,763.04	131.33	14.425	
5,200.00	4,947.22	3,242.00	3,266.00	20.94	123.58	-43.773	-238.56	-418.39	1,930.42	1,803.00	127.41	15.151	
5,250.00	4,987.37	3,242.00	3,266.00	21.01	123.58	-40.401	-238.56	-418.39	1,964.78	1,841.82	122.95	15.980	
5,300.00	5,025.51	3,242.00	3,266.00	21.07	123.58	-37.621	-238.56	-418.39	1,997.36	1,879.35	118.01	16.926	
5,350.00	5,061.48	3,242.00	3,266.00	21.13	123.58	-35.310	-238.56	-418.39	2,028.10	1,915.47	112.64	18.006	
5,400.00	5,095.10	3,242.00	3,266.00	21.18	123.58	-33.376	-238.56	-418.39	2,056.94	1,950.02	106.92	19.238	
5,450.00	5,126.19	3,242.00	3,266.00	21.21	123.58	-31.751	-238.56	-418.39	2,083.81	1,982.87	100.94	20.645	
5,500.00	5,154.62	3,242.00	3,266.00	21.25	123.58	-30.383	-238.56	-418.39	2,108.66	2,013.87	94.79	22.245	
5,550.00	5,180.35	3,242.00	3,266.00	21.27	123.58	-29.540	-238.56	-418.39	2,131.57	2,041.17	90.39	23.581	
5,600.00	5,205.35	3,242.00	3,266.00	21.30	123.58	-29.540	-238.56	-418.39	2,154.63	2,064.12	90.51	23.806	
5,650.00	5,230.35	3,242.00	3,266.00	21.33	123.58	-29.540	-238.56	-418.39	2,178.60	2,087.96	90.64	24.035	
5,700.00	5,255.35	3,242.00	3,266.00	21.36	123.58	-29.540	-238.56	-418.39	2,203.44	2,112.67	90.77	24.274	
5,750.00	5,280.20	3,242.00	3,266.00	21.40	123.58	-29.126	-238.56	-418.39	2,228.99	2,140.41	88.59	25.161	
5,800.00	5,302.17	3,242.00	3,266.00	21.44	123.58	-27.827	-238.56	-418.39	2,252.92	2,172.27	80.65	27.934	
5,850.00	5,320.15	3,242.00	3,266.00	21.48	123.58	-26.743	-238.56	-418.39	2,274.29	2,201.14	73.15	31.091	
5,900.00	5,333.99	3,242.00	3,266.00	21.52	123.58	-25.848	-238.56	-418.39	2,293.01	2,226.47	66.55	34.458	
5,950.00	5,343.59	3,242.00	3,266.00	21.56	123.58	-25.121	-238.56	-418.39	2,309.01	2,247.62	61.39	37.612	
6,000.00	5,348.88	3,242.00	3,266.00	21.60	123.58	-24.545	-238.56	-418.39	2,322.23	2,263.99	58.24	39.874	
6,050.00	5,350.00	3,242.00	3,266.00	21.64	123.58	-24.219	-238.56	-418.39	2,332.76	2,275.26	57.50	40.572	
6,100.00	5,350.00	3,242.00	3,266.00	21.69	123.58	-24.219	-238.56	-418.39	2,343.32	2,285.65	57.67	40.632	
6,150.00	5,350.00	3,242.00	3,266.00	21.77	123.58	-24.219	-238.56	-418.39	2,354.90	2,297.04	57.86	40.697	
6,200.00	5,350.00	3,242.00	3,266.00	21.87	123.58	-24.219	-238.56	-418.39	2,367.48	2,309.42	58.05	40.780	
6,250.00	5,350.00	3,242.00	3,266.00	21.99	123.58	-24.219	-238.56	-418.39	2,381.04	2,322.78	58.26	40.867	
6,300.00	5,350.00	3,242.00	3,266.00	22.14	123.58	-24.219	-238.56	-418.39	2,395.57	2,337.10	58.47	40.972	
6,350.00	5,350.00	3,242.00	3,266.00	22.32	123.58	-24.219	-238.56	-418.39	2,411.05	2,352.36	58.69	41.080	
6,400.00	5,350.00	3,242.00	3,266.00	22.51	123.58	-24.219	-238.56	-418.39	2,427.46	2,368.55	58.91	41.205	
6,450.00	5,350.00	3,242.00	3,266.00	22.74	123.58	-24.219	-238.56	-418.39	2,444.78	2,385.63	59.14	41.336	
6,500.00	5,350.00	3,242.00	3,266.00	22.98	123.58	-24.219	-238.56	-418.39	2,462.99	2,403.62	59.38	41.481	
6,550.00	5,350.00	3,242.00	3,266.00	23.24	123.58	-24.219	-238.56	-418.39	2,482.08	2,422.46	59.62	41.632	
6,600.00	5,350.00	3,242.00	3,266.00	23.52	123.58	-24.219	-238.56	-418.39	2,502.03	2,442.16	59.86	41.797	
6,650.00	5,350.00	3,242.00	3,266.00	23.81	123.58	-24.219	-238.56	-418.39	2,522.80	2,462.69	60.11	41.968	
6,700.00	5,350.00	3,242.00	3,266.00	24.11	123.58	-24.219	-238.56	-418.39	2,544.39	2,484.03	60.36	42.152	
6,750.00	5,350.00	3,242.00	3,266.00	24.43	123.58	-24.219	-238.56	-418.39	2,566.77	2,506.15	60.62	42.342	
6,800.00	5,350.00	3,242.00	3,266.00	24.75	123.58	-24.219	-238.56	-418.39	2,589.93	2,529.05	60.88	42.543	
6,850.00	5,350.00	3,242.00	3,266.00	25.09	123.58	-24.219	-238.56	-418.39	2,613.83	2,552.69	61.14	42.750	
6,900.00	5,350.00	3,242.00	3,266.00	25.43	123.58	-24.219	-238.56	-418.39	2,638.47	2,577.06	61.40	42.969	
6,950.00	5,350.00	3,242.00	3,266.00	25.79	123.58	-24.219	-238.56	-418.39	2,663.82	2,602.14	61.67	43.192	
7,000.00	5,350.00	3,242.00	3,266.00	26.15	123.58	-24.219	-238.56	-418.39	2,689.85	2,627.91	61.94	43.425	
7,050.00	5,350.00	3,242.00	3,266.00	26.52	123.58	-24.219	-238.56	-418.39	2,716.56	2,654.35	62.22	43.663	
7,100.00	5,350.00	3,242.00	3,266.00	26.89	123.58	-24.219	-238.56	-418.39	2,743.92	2,681.43	62.49	43.910	
7,150.00	5,350.00	3,242.00	3,266.00	27.28	123.58	-24.219	-238.56	-418.39	2,771.91	2,709.15	62.77	44.162	
7,200.00	5,350.00	3,242.00	3,266.00	27.67	123.58	-24.219	-238.56	-418.39	2,800.52	2,737.47	63.04	44.422	
7,250.00	5,350.00	3,242.00	3,266.00	28.07	123.58	-24.219	-238.56	-418.39	2,829.72	2,766.39	63.33	44.686	
7,300.00	5,350.00	3,242.00	3,266.00	28.47	123.58	-24.219	-238.56	-418.39	2,859.49	2,795.89	63.60	44.957	
7,350.00	5,350.00	3,242.00	3,266.00	28.88	123.58	-24.219	-238.56	-418.39	2,889.83	2,825.94	63.89	45.232	
7,400.00	5,350.00	3,242.00	3,266.00	29.29	123.58	-24.219	-238.56	-418.39	2,920.70	2,856.53	64.17	45.514	
7,450.00	5,350.00	3,242.00	3,266.00	29.71	123.58	-24.219	-238.56	-418.39	2,952.10	2,887.64	64.46	45.798	
7,500.00	5,350.00	3,242.00	3,266.00	30.13	123.58	-24.219	-238.56	-418.39	2,984.00	2,919.26	64.74	46.089	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	29.00	0.00	0.00	-169.712	-2,212.60	-401.63	2,248.94				
50.00	50.00	21.00	50.00	0.05	0.42	-169.712	-2,212.60	-401.63	2,248.76	2,248.28	0.47	4,744.644	
100.00	100.00	71.00	100.00	0.14	1.42	-169.712	-2,212.60	-401.63	2,248.76	2,247.19	1.56	1,438.245	
150.00	150.00	121.00	150.00	0.32	2.42	-169.712	-2,212.60	-401.63	2,248.76	2,246.01	2.74	819.893	
200.00	200.00	171.00	200.00	0.50	3.42	-169.712	-2,212.60	-401.63	2,248.76	2,244.83	3.92	573.378	
250.00	250.00	221.00	250.00	0.68	4.42	-169.712	-2,212.60	-401.63	2,248.76	2,243.66	5.10	440.833	
300.00	300.00	271.00	300.00	0.86	5.42	-169.712	-2,212.60	-401.63	2,248.76	2,242.48	6.28	358.062	
350.00	350.00	321.00	350.00	1.03	6.84	-26.418	-2,212.60	-401.63	2,248.37	2,240.49	7.87	285.538	
400.00	399.98	370.98	399.98	1.21	8.84	-26.443	-2,212.60	-401.63	2,247.19	2,237.15	10.05	223.678	
450.00	449.93	420.93	449.93	1.38	10.84	-26.485	-2,212.60	-401.63	2,245.24	2,233.03	12.21	183.833	
500.00	499.84	470.84	499.84	1.55	12.83	-26.545	-2,212.60	-401.63	2,242.51	2,228.14	14.37	156.028	
550.00	549.68	520.68	549.68	1.73	14.83	-26.621	-2,212.60	-401.63	2,239.00	2,222.47	16.53	135.480	
600.00	599.45	570.45	599.45	1.90	16.82	-26.715	-2,212.60	-401.63	2,234.71	2,216.04	18.67	119.708	
650.00	649.13	620.13	649.13	2.08	18.81	-26.826	-2,212.60	-401.63	2,229.65	2,208.85	20.80	107.202	
700.00	698.70	669.70	698.70	2.26	20.79	-26.955	-2,212.60	-401.63	2,223.82	2,200.91	22.91	97.056	
750.00	748.15	719.15	748.15	2.44	22.77	-27.102	-2,212.60	-401.63	2,217.22	2,192.21	25.01	88.649	
800.00	797.47	768.47	797.47	2.62	24.74	-27.267	-2,212.60	-401.63	2,209.86	2,182.77	27.09	81.575	
850.00	846.63	817.63	846.63	2.80	26.71	-27.451	-2,212.60	-401.63	2,201.74	2,172.59	29.15	75.533	
900.00	895.62	866.62	895.62	2.99	28.66	-27.654	-2,212.60	-401.63	2,192.86	2,161.68	31.18	70.320	
950.00	944.44	915.44	944.44	3.18	30.62	-27.877	-2,212.60	-401.63	2,183.24	2,150.04	33.20	65.765	
1,000.00	993.06	964.06	993.06	3.37	32.56	-28.120	-2,212.60	-401.63	2,172.87	2,137.69	35.18	61.759	
1,050.00	1,041.46	1,012.46	1,041.46	3.56	34.50	-28.383	-2,212.60	-401.63	2,161.76	2,124.62	37.14	58.202	
1,100.00	1,089.64	1,060.64	1,089.64	3.76	36.43	-28.668	-2,212.60	-401.63	2,149.93	2,110.85	39.08	55.020	
1,150.00	1,137.58	1,108.58	1,137.58	3.96	38.34	-28.974	-2,212.60	-401.63	2,137.37	2,096.39	40.98	52.158	
1,200.00	1,185.27	1,156.27	1,185.27	4.16	40.25	-29.303	-2,212.60	-401.63	2,124.09	2,081.24	42.85	49.567	
1,250.00	1,232.68	1,203.68	1,232.68	4.36	42.15	-29.655	-2,212.60	-401.63	2,110.11	2,065.41	44.70	47.210	
1,300.00	1,279.83	1,250.83	1,279.83	4.57	44.03	-29.975	-2,212.60	-401.63	2,095.47	2,048.90	46.58	44.990	
1,350.00	1,326.92	1,297.92	1,326.92	4.78	45.92	-30.203	-2,212.60	-401.63	2,080.72	2,032.15	48.57	42.840	
1,400.00	1,374.01	1,345.01	1,374.01	4.99	47.80	-30.434	-2,212.60	-401.63	2,065.99	2,015.43	50.57	40.858	
1,450.00	1,421.10	1,392.10	1,421.10	5.20	49.68	-30.668	-2,212.60	-401.63	2,051.30	1,998.74	52.56	39.025	
1,500.00	1,468.19	1,439.19	1,468.19	5.41	51.57	-30.906	-2,212.60	-401.63	2,036.64	1,982.07	54.56	37.326	
1,550.00	1,515.28	1,486.28	1,515.28	5.63	53.45	-31.147	-2,212.60	-401.63	2,022.01	1,965.45	56.57	35.746	
1,600.00	1,562.37	1,533.37	1,562.37	5.84	55.33	-31.391	-2,212.60	-401.63	2,007.42	1,948.85	58.57	34.273	
1,650.00	1,609.46	1,580.46	1,609.46	6.06	57.22	-31.639	-2,212.60	-401.63	1,992.86	1,932.28	60.58	32.898	
1,700.00	1,656.55	1,627.55	1,656.55	6.27	59.10	-31.890	-2,212.60	-401.63	1,978.34	1,915.75	62.59	31.610	
1,750.00	1,703.64	1,674.64	1,703.64	6.49	60.99	-32.145	-2,212.60	-401.63	1,963.85	1,899.26	64.60	30.402	
1,800.00	1,750.73	1,721.73	1,750.73	6.71	62.87	-32.404	-2,212.60	-401.63	1,949.41	1,882.80	66.61	29.267	
1,850.00	1,797.82	1,768.82	1,797.82	6.93	64.75	-32.666	-2,212.60	-401.63	1,935.00	1,866.37	68.62	28.198	
1,900.00	1,844.91	1,815.91	1,844.91	7.14	66.64	-32.932	-2,212.60	-401.63	1,920.63	1,849.99	70.64	27.189	
1,950.00	1,892.00	1,863.00	1,892.00	7.36	68.52	-33.202	-2,212.60	-401.63	1,906.29	1,833.64	72.66	26.237	
2,000.00	1,939.08	1,910.08	1,939.08	7.58	70.40	-33.476	-2,212.60	-401.63	1,892.00	1,817.33	74.68	25.336	
2,050.00	1,986.17	1,957.17	1,986.17	7.80	72.29	-33.754	-2,212.60	-401.63	1,877.76	1,801.06	76.70	24.482	
2,100.00	2,033.26	2,004.26	2,033.26	8.02	74.17	-34.036	-2,212.60	-401.63	1,863.55	1,784.83	78.72	23.672	
2,150.00	2,080.35	2,051.35	2,080.35	8.24	76.05	-34.322	-2,212.60	-401.63	1,849.39	1,768.64	80.75	22.903	
2,200.00	2,127.44	2,098.44	2,127.44	8.46	77.94	-34.613	-2,212.60	-401.63	1,835.27	1,752.49	82.78	22.171	
2,250.00	2,174.53	2,145.53	2,174.53	8.68	79.82	-34.908	-2,212.60	-401.63	1,821.20	1,736.39	84.81	21.474	
2,300.00	2,221.62	2,192.62	2,221.62	8.90	81.70	-35.207	-2,212.60	-401.63	1,807.17	1,720.33	86.84	20.810	
2,350.00	2,268.71	2,239.71	2,268.71	9.12	83.59	-35.511	-2,212.60	-401.63	1,793.20	1,704.32	88.88	20.176	
2,400.00	2,315.80	2,286.80	2,315.80	9.34	85.47	-35.819	-2,212.60	-401.63	1,779.27	1,688.36	90.91	19.571	
2,450.00	2,362.89	2,333.89	2,362.89	9.56	87.36	-36.132	-2,212.60	-401.63	1,765.39	1,672.44	92.95	18.992	
2,500.00	2,409.98	2,380.98	2,409.98	9.78	89.24	-36.450	-2,212.60	-401.63	1,751.57	1,656.57	94.99	18.439	
2,550.00	2,457.07	2,428.07	2,457.07	10.00	91.12	-36.772	-2,212.60	-401.63	1,737.79	1,640.75	97.04	17.908	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,475.16	2,504.16	10.22	93.01	-37.100	-2,212.60	-401.63	1,724.07	1,624.99	99.08	17.400	
2,650.00	2,551.25	2,522.25	2,551.25	10.44	94.89	-37.432	-2,212.60	-401.63	1,710.41	1,609.27	101.13	16.913	
2,700.00	2,598.34	2,569.34	2,598.34	10.67	96.77	-37.770	-2,212.60	-401.63	1,696.80	1,593.62	103.18	16.444	
2,750.00	2,645.42	2,616.42	2,645.42	10.89	98.66	-38.113	-2,212.60	-401.63	1,683.25	1,578.01	105.24	15.995	
2,800.00	2,692.51	2,663.51	2,692.51	11.11	100.54	-38.461	-2,212.60	-401.63	1,669.76	1,562.46	107.29	15.562	
2,850.00	2,739.60	2,710.60	2,739.60	11.33	102.42	-38.814	-2,212.60	-401.63	1,656.33	1,546.97	109.35	15.147	
2,900.00	2,786.69	2,757.69	2,786.69	11.55	104.31	-39.173	-2,212.60	-401.63	1,642.96	1,531.54	111.41	14.746	
2,950.00	2,833.78	2,804.78	2,833.78	11.77	106.19	-39.538	-2,212.60	-401.63	1,629.66	1,516.18	113.48	14.361	
3,000.00	2,880.87	2,851.87	2,880.87	12.00	108.07	-39.908	-2,212.60	-401.63	1,616.42	1,500.87	115.55	13.989	
3,050.00	2,927.96	2,898.96	2,927.96	12.22	109.96	-40.285	-2,212.60	-401.63	1,603.24	1,485.63	117.62	13.631	
3,100.00	2,975.05	2,946.05	2,975.05	12.44	111.84	-40.667	-2,212.60	-401.63	1,590.14	1,470.45	119.69	13.286	
3,150.00	3,022.14	2,993.14	3,022.14	12.66	113.73	-41.055	-2,212.60	-401.63	1,577.11	1,455.34	121.77	12.952	
3,200.00	3,069.23	3,040.23	3,069.23	12.89	115.61	-41.449	-2,212.60	-401.63	1,564.15	1,440.30	123.84	12.630	
3,250.00	3,116.32	3,087.32	3,116.32	13.11	117.49	-41.850	-2,212.60	-401.63	1,551.26	1,425.33	125.93	12.319	
3,300.00	3,163.41	3,134.41	3,163.41	13.33	119.38	-42.257	-2,212.60	-401.63	1,538.45	1,410.44	128.01	12.018	
3,350.00	3,210.50	3,181.50	3,210.50	13.55	121.26	-42.670	-2,212.60	-401.63	1,525.71	1,395.61	130.10	11.727	
3,400.00	3,257.59	3,228.59	3,257.59	13.78	123.14	-43.090	-2,212.60	-401.63	1,513.06	1,380.87	132.19	11.446	
3,450.00	3,304.68	3,262.00	3,291.00	14.00	124.48	-43.392	-2,212.60	-401.63	1,500.55	1,366.81	133.74	11.220	
3,500.00	3,351.76	3,262.00	3,291.00	14.22	124.48	-43.392	-2,212.60	-401.63	1,489.24	1,355.30	133.94	11.119	
3,550.00	3,398.85	3,262.00	3,291.00	14.44	124.48	-43.392	-2,212.60	-401.63	1,479.53	1,345.39	134.14	11.030	
3,600.00	3,445.94	3,262.00	3,291.00	14.67	124.48	-43.392	-2,212.60	-401.63	1,471.46	1,337.12	134.34	10.953	
3,650.00	3,493.03	3,262.00	3,291.00	14.89	124.48	-43.392	-2,212.60	-401.63	1,465.05	1,330.51	134.55	10.889	
3,700.00	3,540.12	3,262.00	3,291.00	15.11	124.48	-43.392	-2,212.60	-401.63	1,460.33	1,325.58	134.75	10.838	
3,750.00	3,587.21	3,262.00	3,291.00	15.34	124.48	-43.392	-2,212.60	-401.63	1,457.31	1,322.36	134.95	10.799	
3,800.00	3,634.30	3,262.00	3,291.00	15.56	124.48	-43.392	-2,212.60	-401.63	1,456.00	1,320.85	135.15	10.773	
3,813.17	3,646.71	3,262.00	3,291.00	15.62	124.48	-43.392	-2,212.60	-401.63	1,455.94	1,320.73	135.21	10.768 CC, ES	
3,850.00	3,681.39	3,262.00	3,291.00	15.78	124.48	-43.392	-2,212.60	-401.63	1,456.40	1,321.05	135.35	10.760	
3,900.00	3,728.48	3,262.00	3,291.00	16.01	124.48	-43.392	-2,212.60	-401.63	1,458.53	1,322.97	135.56	10.759 SF	
3,950.00	3,775.57	3,262.00	3,291.00	16.23	124.48	-43.392	-2,212.60	-401.63	1,462.35	1,326.59	135.76	10.772	
4,000.00	3,822.66	3,262.00	3,291.00	16.45	124.48	-43.392	-2,212.60	-401.63	1,467.88	1,331.91	135.96	10.796	
4,050.00	3,869.75	3,262.00	3,291.00	16.67	124.48	-43.392	-2,212.60	-401.63	1,475.07	1,338.91	136.16	10.833	
4,100.00	3,916.84	3,262.00	3,291.00	16.90	124.48	-43.392	-2,212.60	-401.63	1,483.92	1,347.56	136.37	10.882	
4,150.00	3,963.93	3,262.00	3,291.00	17.12	124.48	-43.392	-2,212.60	-401.63	1,494.39	1,357.82	136.57	10.942	
4,200.00	4,011.02	3,262.00	3,291.00	17.34	124.48	-43.392	-2,212.60	-401.63	1,506.45	1,369.68	136.77	11.014	
4,250.00	4,058.10	3,262.00	3,291.00	17.57	124.48	-43.392	-2,212.60	-401.63	1,520.06	1,383.08	136.97	11.097	
4,300.00	4,105.19	3,262.00	3,291.00	17.79	124.48	-43.392	-2,212.60	-401.63	1,535.17	1,398.00	137.18	11.191	
4,350.00	4,152.28	3,262.00	3,291.00	18.01	124.48	-43.392	-2,212.60	-401.63	1,551.75	1,414.37	137.38	11.295	
4,400.00	4,199.37	3,262.00	3,291.00	18.24	124.48	-43.392	-2,212.60	-401.63	1,569.75	1,432.17	137.58	11.409	
4,450.00	4,246.46	3,262.00	3,291.00	18.46	124.48	-43.392	-2,212.60	-401.63	1,589.12	1,451.33	137.79	11.533	
4,500.00	4,293.55	3,262.00	3,291.00	18.68	124.48	-43.392	-2,212.60	-401.63	1,609.81	1,471.82	137.99	11.666	
4,550.00	4,340.64	3,262.00	3,291.00	18.91	124.48	-43.392	-2,212.60	-401.63	1,631.77	1,493.58	138.19	11.808	
4,600.00	4,387.73	3,262.00	3,291.00	19.13	124.48	-43.392	-2,212.60	-401.63	1,654.95	1,516.55	138.39	11.958	
4,650.00	4,434.91	3,262.00	3,291.00	19.35	124.48	-40.317	-2,212.60	-401.63	1,679.29	1,540.53	138.77	12.102	
4,700.00	4,482.67	3,262.00	3,291.00	19.57	124.48	-31.981	-2,212.60	-401.63	1,704.71	1,565.50	139.21	12.246	
4,750.00	4,530.89	3,262.00	3,291.00	19.77	124.48	-20.921	-2,212.60	-401.63	1,731.02	1,591.53	139.49	12.410	
4,800.00	4,579.34	3,262.00	3,291.00	19.95	124.48	-7.940	-2,212.60	-401.63	1,758.06	1,618.48	139.58	12.595	
4,850.00	4,627.79	3,262.00	3,291.00	20.12	124.48	4.920	-2,212.60	-401.63	1,785.68	1,646.21	139.47	12.804	
4,900.00	4,676.00	3,262.00	3,291.00	20.28	124.48	15.663	-2,212.60	-401.63	1,813.71	1,674.61	139.10	13.039	
4,950.00	4,723.73	3,262.00	3,291.00	20.42	124.48	23.560	-2,212.60	-401.63	1,842.01	1,703.56	138.45	13.304	
5,000.00	4,770.75	3,262.00	3,291.00	20.54	124.48	28.910	-2,212.60	-401.63	1,870.42	1,732.95	137.47	13.606	
5,050.00	4,816.83	3,262.00	3,291.00	20.66	124.48	32.327	-2,212.60	-401.63	1,898.80	1,762.69	136.12	13.950	
5,100.00	4,861.74	3,262.00	3,291.00	20.76	124.48	34.371	-2,212.60	-401.63	1,927.03	1,792.68	134.35	14.343	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	4,905.28	3,262.00	3,291.00	20.86	124.48	35.461	-2,212.60	-401.63	1,954.97	1,822.82	132.15	14.794	
5,200.00	4,947.22	3,262.00	3,291.00	20.94	124.48	35.896	-2,212.60	-401.63	1,982.51	1,853.02	129.49	15.311	
5,250.00	4,987.37	3,262.00	3,291.00	21.01	124.48	35.881	-2,212.60	-401.63	2,009.52	1,883.16	126.36	15.903	
5,300.00	5,025.51	3,262.00	3,291.00	21.07	124.48	35.562	-2,212.60	-401.63	2,035.90	1,913.11	122.78	16.581	
5,350.00	5,061.48	3,262.00	3,291.00	21.13	124.48	35.041	-2,212.60	-401.63	2,061.54	1,942.76	118.78	17.356	
5,400.00	5,095.10	3,262.00	3,291.00	21.18	124.48	34.391	-2,212.60	-401.63	2,086.36	1,971.97	114.39	18.239	
5,450.00	5,126.19	3,262.00	3,291.00	21.21	124.48	33.662	-2,212.60	-401.63	2,110.26	2,000.59	109.68	19.241	
5,500.00	5,154.62	3,262.00	3,291.00	21.25	124.48	32.892	-2,212.60	-401.63	2,133.16	2,028.45	104.71	20.372	
5,550.00	5,180.35	3,262.00	3,291.00	21.27	124.48	32.330	-2,212.60	-401.63	2,155.07	2,053.99	101.08	21.321	
5,600.00	5,205.35	3,262.00	3,291.00	21.30	124.48	32.330	-2,212.60	-401.63	2,177.38	2,076.21	101.17	21.522	
5,650.00	5,230.35	3,262.00	3,291.00	21.33	124.48	32.330	-2,212.60	-401.63	2,200.61	2,099.33	101.27	21.729	
5,700.00	5,255.35	3,262.00	3,291.00	21.36	124.48	32.330	-2,212.60	-401.63	2,224.71	2,123.34	101.38	21.945	
5,750.00	5,280.20	3,262.00	3,291.00	21.40	124.48	31.898	-2,212.60	-401.63	2,249.54	2,150.17	99.37	22.638	
5,800.00	5,302.17	3,262.00	3,291.00	21.44	124.48	30.536	-2,212.60	-401.63	2,272.80	2,180.65	92.15	24.664	
5,850.00	5,320.15	3,262.00	3,291.00	21.48	124.48	29.395	-2,212.60	-401.63	2,293.57	2,208.24	85.33	26.878	
5,900.00	5,333.99	3,262.00	3,291.00	21.52	124.48	28.450	-2,212.60	-401.63	2,311.76	2,232.46	79.30	29.154	
5,950.00	5,343.59	3,262.00	3,291.00	21.56	124.48	27.681	-2,212.60	-401.63	2,327.30	2,252.84	74.47	31.253	
6,000.00	5,348.88	3,262.00	3,291.00	21.60	124.48	27.070	-2,212.60	-401.63	2,340.13	2,268.85	71.28	32.832	
6,050.00	5,350.00	3,262.00	3,291.00	21.64	124.48	26.724	-2,212.60	-401.63	2,350.34	2,280.10	70.24	33.461	
6,100.00	5,350.00	3,262.00	3,291.00	21.69	124.48	26.724	-2,212.60	-401.63	2,360.60	2,290.21	70.39	33.537	
6,150.00	5,350.00	3,262.00	3,291.00	21.77	124.48	26.724	-2,212.60	-401.63	2,371.86	2,301.32	70.54	33.623	
6,200.00	5,350.00	3,262.00	3,291.00	21.87	124.48	26.724	-2,212.60	-401.63	2,384.13	2,313.43	70.70	33.723	
6,250.00	5,350.00	3,262.00	3,291.00	21.99	124.48	26.724	-2,212.60	-401.63	2,397.37	2,326.51	70.86	33.831	
6,300.00	5,350.00	3,262.00	3,291.00	22.14	124.48	26.724	-2,212.60	-401.63	2,411.58	2,340.55	71.03	33.952	
6,350.00	5,350.00	3,262.00	3,291.00	22.32	124.48	26.724	-2,212.60	-401.63	2,426.73	2,355.53	71.20	34.081	
6,400.00	5,350.00	3,262.00	3,291.00	22.51	124.48	26.724	-2,212.60	-401.63	2,442.82	2,371.44	71.38	34.223	
6,450.00	5,350.00	3,262.00	3,291.00	22.74	124.48	26.724	-2,212.60	-401.63	2,459.81	2,388.25	71.56	34.372	
6,500.00	5,350.00	3,262.00	3,291.00	22.98	124.48	26.724	-2,212.60	-401.63	2,477.70	2,405.95	71.75	34.533	
6,550.00	5,350.00	3,262.00	3,291.00	23.24	124.48	26.724	-2,212.60	-401.63	2,496.46	2,424.52	71.94	34.701	
6,600.00	5,350.00	3,262.00	3,291.00	23.52	124.48	26.724	-2,212.60	-401.63	2,516.08	2,443.94	72.14	34.880	
6,650.00	5,350.00	3,262.00	3,291.00	23.81	124.48	26.724	-2,212.60	-401.63	2,536.52	2,464.19	72.34	35.066	
6,700.00	5,350.00	3,262.00	3,291.00	24.11	124.48	26.724	-2,212.60	-401.63	2,557.79	2,485.25	72.54	35.261	
6,750.00	5,350.00	3,262.00	3,291.00	24.43	124.48	26.724	-2,212.60	-401.63	2,579.84	2,507.10	72.75	35.464	
6,800.00	5,350.00	3,262.00	3,291.00	24.75	124.48	26.724	-2,212.60	-401.63	2,602.68	2,529.72	72.96	35.675	
6,850.00	5,350.00	3,262.00	3,291.00	25.09	124.48	26.724	-2,212.60	-401.63	2,626.26	2,553.09	73.17	35.892	
6,900.00	5,350.00	3,262.00	3,291.00	25.43	124.48	26.724	-2,212.60	-401.63	2,650.58	2,577.19	73.39	36.118	
6,950.00	5,350.00	3,262.00	3,291.00	25.79	124.48	26.724	-2,212.60	-401.63	2,675.61	2,602.00	73.61	36.349	
7,000.00	5,350.00	3,262.00	3,291.00	26.15	124.48	26.724	-2,212.60	-401.63	2,701.33	2,627.50	73.83	36.589	
7,050.00	5,350.00	3,262.00	3,291.00	26.52	124.48	26.724	-2,212.60	-401.63	2,727.73	2,653.68	74.06	36.833	
7,100.00	5,350.00	3,262.00	3,291.00	26.89	124.48	26.724	-2,212.60	-401.63	2,754.79	2,680.50	74.29	37.084	
7,150.00	5,350.00	3,262.00	3,291.00	27.28	124.48	26.724	-2,212.60	-401.63	2,782.48	2,707.96	74.52	37.339	
7,200.00	5,350.00	3,262.00	3,291.00	27.67	124.48	26.724	-2,212.60	-401.63	2,810.78	2,736.03	74.75	37.601	
7,250.00	5,350.00	3,262.00	3,291.00	28.07	124.48	26.724	-2,212.60	-401.63	2,839.69	2,764.70	74.99	37.867	
7,300.00	5,350.00	3,262.00	3,291.00	28.47	124.48	26.724	-2,212.60	-401.63	2,869.17	2,793.94	75.23	38.139	
7,350.00	5,350.00	3,262.00	3,291.00	28.88	124.48	26.724	-2,212.60	-401.63	2,899.22	2,823.75	75.47	38.415	
7,400.00	5,350.00	3,262.00	3,291.00	29.29	124.48	26.724	-2,212.60	-401.63	2,929.81	2,854.09	75.71	38.695	
7,450.00	5,350.00	3,262.00	3,291.00	29.71	124.48	26.724	-2,212.60	-401.63	2,960.93	2,884.97	75.96	38.979	
7,500.00	5,350.00	3,262.00	3,291.00	30.13	124.48	26.724	-2,212.60	-401.63	2,992.56	2,916.35	76.21	39.268	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toelface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	24.00	0.00	0.00	-148.981	-1,230.52	-739.94	1,436.06				
50.00	50.00	26.00	50.00	0.05	0.51	-148.981	-1,230.52	-739.94	1,435.86	1,435.29	0.57	2,540.874	
100.00	100.00	76.00	100.00	0.14	1.49	-148.981	-1,230.52	-739.94	1,435.86	1,434.22	1.64	876.563	
150.00	150.00	126.00	150.00	0.32	2.48	-148.981	-1,230.52	-739.94	1,435.86	1,433.06	2.80	512.692	
200.00	200.00	176.00	200.00	0.50	3.46	-148.981	-1,230.52	-739.94	1,435.86	1,431.90	3.96	362.298	
250.00	250.00	226.00	250.00	0.68	4.44	-148.981	-1,230.52	-739.94	1,435.86	1,430.73	5.13	280.126	
300.00	300.00	276.00	300.00	0.86	5.43	-148.981	-1,230.52	-739.94	1,435.86	1,429.57	6.29	228.337	
350.00	350.00	326.00	350.00	1.03	6.94	-5.681	-1,230.52	-739.94	1,435.42	1,427.45	7.97	180.003	
400.00	399.98	375.98	399.98	1.21	8.94	-5.689	-1,230.52	-739.94	1,434.12	1,423.98	10.15	141.334	
450.00	449.93	425.93	449.93	1.38	10.94	-5.702	-1,230.52	-739.94	1,431.95	1,419.64	12.31	116.292	
500.00	499.84	475.84	499.84	1.55	12.93	-5.720	-1,230.52	-739.94	1,428.91	1,414.44	14.47	98.747	
550.00	549.68	525.68	549.68	1.73	14.93	-5.743	-1,230.52	-739.94	1,425.01	1,408.39	16.62	85.738	
600.00	599.45	575.45	599.45	1.90	16.92	-5.772	-1,230.52	-739.94	1,420.24	1,401.49	18.76	75.722	
650.00	649.13	625.13	649.13	2.08	18.91	-5.807	-1,230.52	-739.94	1,414.61	1,393.73	20.88	67.757	
700.00	698.70	674.70	698.70	2.26	20.89	-5.847	-1,230.52	-739.94	1,408.12	1,385.14	22.98	61.276	
750.00	748.15	724.15	748.15	2.44	22.87	-5.893	-1,230.52	-739.94	1,400.77	1,375.70	25.06	55.892	
800.00	797.47	773.47	797.47	2.62	24.84	-5.945	-1,230.52	-739.94	1,392.56	1,365.44	27.12	51.346	
850.00	846.63	822.63	846.63	2.80	26.81	-6.003	-1,230.52	-739.94	1,383.49	1,354.34	29.16	47.452	
900.00	895.62	871.62	895.62	2.99	28.76	-6.068	-1,230.52	-739.94	1,373.58	1,342.42	31.16	44.083	
950.00	944.44	920.44	944.44	3.18	30.72	-6.140	-1,230.52	-739.94	1,362.81	1,329.68	33.14	41.129	
1,000.00	993.06	969.06	993.06	3.37	32.66	-6.219	-1,230.52	-739.94	1,351.21	1,316.13	35.08	38.522	
1,050.00	1,041.46	1,017.46	1,041.46	3.56	34.60	-6.305	-1,230.52	-739.94	1,338.76	1,301.77	36.98	36.199	
1,100.00	1,089.64	1,065.64	1,089.64	3.76	36.53	-6.399	-1,230.52	-739.94	1,325.47	1,286.62	38.85	34.114	
1,150.00	1,137.58	1,113.58	1,137.58	3.96	38.44	-6.501	-1,230.52	-739.94	1,311.35	1,270.67	40.69	32.231	
1,200.00	1,185.27	1,161.27	1,185.27	4.16	40.35	-6.612	-1,230.52	-739.94	1,296.41	1,253.93	42.48	30.520	
1,250.00	1,232.68	1,208.68	1,232.68	4.36	42.25	-6.733	-1,230.52	-739.94	1,280.64	1,236.41	44.23	28.957	
1,300.00	1,279.83	1,255.83	1,279.83	4.57	44.13	-6.848	-1,230.52	-739.94	1,264.11	1,218.08	46.02	27.468	
1,350.00	1,326.92	1,302.92	1,326.92	4.78	46.02	-6.940	-1,230.52	-739.94	1,247.40	1,199.43	47.97	26.003	
1,400.00	1,374.01	1,350.01	1,374.01	4.99	47.90	-7.034	-1,230.52	-739.94	1,230.70	1,180.78	49.92	24.652	
1,450.00	1,421.10	1,397.10	1,421.10	5.20	49.78	-7.132	-1,230.52	-739.94	1,214.01	1,162.13	51.88	23.402	
1,500.00	1,468.19	1,444.19	1,468.19	5.41	51.67	-7.231	-1,230.52	-739.94	1,197.31	1,143.48	53.83	22.242	
1,550.00	1,515.28	1,491.28	1,515.28	5.63	53.55	-7.334	-1,230.52	-739.94	1,180.62	1,124.84	55.78	21.164	
1,600.00	1,562.37	1,538.37	1,562.37	5.84	55.43	-7.439	-1,230.52	-739.94	1,163.94	1,106.20	57.74	20.158	
1,650.00	1,609.46	1,585.46	1,609.46	6.06	57.32	-7.548	-1,230.52	-739.94	1,147.25	1,087.56	59.70	19.218	
1,700.00	1,656.55	1,632.55	1,656.55	6.27	59.20	-7.660	-1,230.52	-739.94	1,130.57	1,068.92	61.65	18.338	
1,750.00	1,703.64	1,679.64	1,703.64	6.49	61.09	-7.775	-1,230.52	-739.94	1,113.90	1,050.29	63.61	17.511	
1,800.00	1,750.73	1,726.73	1,750.73	6.71	62.97	-7.894	-1,230.52	-739.94	1,097.23	1,031.66	65.57	16.734	
1,850.00	1,797.82	1,773.82	1,797.82	6.93	64.85	-8.016	-1,230.52	-739.94	1,080.56	1,013.03	67.53	16.002	
1,900.00	1,844.91	1,820.91	1,844.91	7.14	66.74	-8.142	-1,230.52	-739.94	1,063.90	994.41	69.49	15.311	
1,950.00	1,892.00	1,868.00	1,892.00	7.36	68.62	-8.272	-1,230.52	-739.94	1,047.24	975.79	71.45	14.657	
2,000.00	1,939.08	1,915.08	1,939.08	7.58	70.50	-8.406	-1,230.52	-739.94	1,030.59	957.18	73.41	14.039	
2,050.00	1,986.17	1,962.17	1,986.17	7.80	72.39	-8.545	-1,230.52	-739.94	1,013.94	938.57	75.37	13.453	
2,100.00	2,033.26	2,009.26	2,033.26	8.02	74.27	-8.688	-1,230.52	-739.94	997.30	919.97	77.33	12.896	
2,150.00	2,080.35	2,056.35	2,080.35	8.24	76.15	-8.837	-1,230.52	-739.94	980.66	901.37	79.30	12.367	
2,200.00	2,127.44	2,103.44	2,127.44	8.46	78.04	-8.990	-1,230.52	-739.94	964.03	882.77	81.26	11.864	
2,250.00	2,174.53	2,150.53	2,174.53	8.68	79.92	-9.149	-1,230.52	-739.94	947.41	864.19	83.22	11.384	
2,300.00	2,221.62	2,197.62	2,221.62	8.90	81.80	-9.313	-1,230.52	-739.94	930.79	845.60	85.19	10.926	
2,350.00	2,268.71	2,244.71	2,268.71	9.12	83.69	-9.483	-1,230.52	-739.94	914.18	827.03	87.15	10.489	
2,400.00	2,315.80	2,291.80	2,315.80	9.34	85.57	-9.660	-1,230.52	-739.94	897.58	808.46	89.12	10.072	
2,450.00	2,362.89	2,338.89	2,362.89	9.56	87.46	-9.843	-1,230.52	-739.94	880.98	789.90	91.09	9.672	
2,500.00	2,409.98	2,385.98	2,409.98	9.78	89.34	-10.033	-1,230.52	-739.94	864.40	771.34	93.06	9.289	
2,550.00	2,457.07	2,433.07	2,457.07	10.00	91.22	-10.230	-1,230.52	-739.94	847.82	752.80	95.02	8.922	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,480.16	2,504.16	10.22	93.11	-10.436	-1,230.52	-739.94	831.25	734.26	96.99	8.570	
2,650.00	2,551.25	2,527.25	2,551.25	10.44	94.99	-10.650	-1,230.52	-739.94	814.69	715.73	98.96	8.232	
2,700.00	2,598.34	2,574.34	2,598.34	10.67	96.87	-10.872	-1,230.52	-739.94	798.15	697.21	100.94	7.907	
2,750.00	2,645.42	2,621.42	2,645.42	10.89	98.76	-11.104	-1,230.52	-739.94	781.61	678.70	102.91	7.595	
2,800.00	2,692.51	2,668.51	2,692.51	11.11	100.64	-11.346	-1,230.52	-739.94	765.09	660.20	104.88	7.295	
2,850.00	2,739.60	2,715.60	2,739.60	11.33	102.52	-11.599	-1,230.52	-739.94	748.57	641.71	106.86	7.005	
2,900.00	2,786.69	2,762.69	2,786.69	11.55	104.41	-11.862	-1,230.52	-739.94	732.08	623.24	108.84	6.726	
2,950.00	2,833.78	2,809.78	2,833.78	11.77	106.29	-12.138	-1,230.52	-739.94	715.59	604.78	110.82	6.457	
3,000.00	2,880.87	2,856.87	2,880.87	12.00	108.17	-12.427	-1,230.52	-739.94	699.12	586.33	112.80	6.198	
3,050.00	2,927.96	2,903.96	2,927.96	12.22	110.06	-12.730	-1,230.52	-739.94	682.67	567.89	114.78	5.948	
3,100.00	2,975.05	2,951.05	2,975.05	12.44	111.94	-13.048	-1,230.52	-739.94	666.24	549.48	116.76	5.706	
3,150.00	3,022.14	2,998.14	3,022.14	12.66	113.83	-13.381	-1,230.52	-739.94	649.83	531.08	118.75	5.472	
3,200.00	3,069.23	3,045.23	3,069.23	12.89	115.71	-13.732	-1,230.52	-739.94	633.43	512.69	120.74	5.246	
3,250.00	3,116.32	3,092.32	3,116.32	13.11	117.59	-14.102	-1,230.52	-739.94	617.06	494.33	122.73	5.028	
3,300.00	3,163.41	3,139.41	3,163.41	13.33	119.48	-14.491	-1,230.52	-739.94	600.72	475.99	124.73	4.816	
3,350.00	3,210.50	3,186.50	3,210.50	13.55	121.36	-14.902	-1,230.52	-739.94	584.40	457.67	126.73	4.612	
3,400.00	3,257.59	3,195.00	3,219.00	13.78	121.70	-14.978	-1,230.52	-739.94	569.41	442.17	127.24	4.475	
3,450.00	3,304.68	3,195.00	3,219.00	14.00	121.70	-14.978	-1,230.52	-739.94	558.45	431.03	127.43	4.383	
3,500.00	3,351.76	3,195.00	3,219.00	14.22	121.70	-14.978	-1,230.52	-739.94	551.83	424.21	127.61	4.324	
3,548.59	3,397.53	3,195.00	3,219.00	14.44	121.70	-14.978	-1,230.52	-739.94	549.68	421.89	127.79	4.301 CC	
3,550.00	3,398.85	3,195.00	3,219.00	14.44	121.70	-14.978	-1,230.52	-739.94	549.68	421.88	127.80	4.301 ES, SF	
3,600.00	3,445.94	3,195.00	3,219.00	14.67	121.70	-14.978	-1,230.52	-739.94	552.08	424.09	127.99	4.314	
3,650.00	3,493.03	3,195.00	3,219.00	14.89	121.70	-14.978	-1,230.52	-739.94	558.96	430.78	128.17	4.361	
3,700.00	3,540.12	3,195.00	3,219.00	15.11	121.70	-14.978	-1,230.52	-739.94	570.15	441.79	128.36	4.442	
3,750.00	3,587.21	3,195.00	3,219.00	15.34	121.70	-14.978	-1,230.52	-739.94	585.42	456.87	128.55	4.554	
3,800.00	3,634.30	3,195.00	3,219.00	15.56	121.70	-14.978	-1,230.52	-739.94	604.45	475.71	128.74	4.695	
3,850.00	3,681.39	3,195.00	3,219.00	15.78	121.70	-14.978	-1,230.52	-739.94	626.89	497.97	128.92	4.863	
3,900.00	3,728.48	3,195.00	3,219.00	16.01	121.70	-14.978	-1,230.52	-739.94	652.41	523.30	129.11	5.053	
3,950.00	3,775.57	3,195.00	3,219.00	16.23	121.70	-14.978	-1,230.52	-739.94	680.64	551.35	129.30	5.264	
4,000.00	3,822.66	3,195.00	3,219.00	16.45	121.70	-14.978	-1,230.52	-739.94	711.28	581.79	129.48	5.493	
4,050.00	3,869.75	3,195.00	3,219.00	16.67	121.70	-14.978	-1,230.52	-739.94	744.02	614.34	129.67	5.738	
4,100.00	3,916.84	3,195.00	3,219.00	16.90	121.70	-14.978	-1,230.52	-739.94	778.59	648.73	129.86	5.996	
4,150.00	3,963.93	3,195.00	3,219.00	17.12	121.70	-14.978	-1,230.52	-739.94	814.76	684.72	130.05	6.265	
4,200.00	4,011.02	3,195.00	3,219.00	17.34	121.70	-14.978	-1,230.52	-739.94	852.34	722.10	130.23	6.545	
4,250.00	4,058.10	3,195.00	3,219.00	17.57	121.70	-14.978	-1,230.52	-739.94	891.13	760.71	130.42	6.833	
4,300.00	4,105.19	3,195.00	3,219.00	17.79	121.70	-14.978	-1,230.52	-739.94	931.00	800.39	130.61	7.128	
4,350.00	4,152.28	3,195.00	3,219.00	18.01	121.70	-14.978	-1,230.52	-739.94	971.80	841.01	130.80	7.430	
4,400.00	4,199.37	3,195.00	3,219.00	18.24	121.70	-14.978	-1,230.52	-739.94	1,013.43	882.45	130.98	7.737	
4,450.00	4,246.46	3,195.00	3,219.00	18.46	121.70	-14.978	-1,230.52	-739.94	1,055.79	924.61	131.17	8.049	
4,500.00	4,293.55	3,195.00	3,219.00	18.68	121.70	-14.978	-1,230.52	-739.94	1,098.78	967.42	131.36	8.365	
4,550.00	4,340.64	3,195.00	3,219.00	18.91	121.70	-14.978	-1,230.52	-739.94	1,142.35	1,010.80	131.55	8.684	
4,600.00	4,387.73	3,195.00	3,219.00	19.13	121.70	-14.978	-1,230.52	-739.94	1,186.43	1,054.69	131.73	9.006	
4,650.00	4,434.91	3,195.00	3,219.00	19.35	121.70	-14.265	-1,230.52	-739.94	1,231.03	1,098.25	132.79	9.271	
4,700.00	4,482.67	3,195.00	3,219.00	19.57	121.70	-11.793	-1,230.52	-739.94	1,276.56	1,142.08	134.48	9.493	
4,750.00	4,530.89	3,195.00	3,219.00	19.77	121.70	-7.756	-1,230.52	-739.94	1,322.79	1,187.02	135.76	9.743	
4,800.00	4,579.34	3,195.00	3,219.00	19.95	121.70	-2.582	-1,230.52	-739.94	1,369.44	1,232.85	136.60	10.025	
4,850.00	4,627.79	3,195.00	3,219.00	20.12	121.70	2.344	-1,230.52	-739.94	1,416.26	1,279.42	136.85	10.349	
4,900.00	4,676.00	3,195.00	3,219.00	20.28	121.70	5.745	-1,230.52	-739.94	1,463.02	1,326.66	136.36	10.729	
4,950.00	4,723.73	3,195.00	3,219.00	20.42	121.70	7.403	-1,230.52	-739.94	1,509.49	1,374.45	135.04	11.178	
5,000.00	4,770.75	3,195.00	3,219.00	20.54	121.70	7.811	-1,230.52	-739.94	1,555.49	1,422.59	132.90	11.704	
5,050.00	4,816.83	3,195.00	3,219.00	20.66	121.70	7.526	-1,230.52	-739.94	1,600.85	1,470.88	129.98	12.316	
5,100.00	4,861.74	3,195.00	3,219.00	20.76	121.70	6.926	-1,230.52	-739.94	1,645.41	1,519.08	126.33	13.024	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:		0.00 usft
Survey Program: 300-UNKNOWN													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,150.00	4,905.28	3,195.00	3,219.00	20.86	121.70	6.220	-1,230.52	-739.94	1,689.02	1,567.00	122.03	13.842			
5,200.00	4,947.22	3,195.00	3,219.00	20.94	121.70	5.509	-1,230.52	-739.94	1,731.55	1,614.45	117.10	14.786			
5,250.00	4,987.37	3,195.00	3,219.00	21.01	121.70	4.838	-1,230.52	-739.94	1,772.88	1,661.27	111.61	15.885			
5,300.00	5,025.51	3,195.00	3,219.00	21.07	121.70	4.222	-1,230.52	-739.94	1,812.89	1,707.30	105.58	17.170			
5,350.00	5,061.48	3,195.00	3,219.00	21.13	121.70	3.664	-1,230.52	-739.94	1,851.48	1,752.42	99.06	18.690			
5,400.00	5,095.10	3,195.00	3,219.00	21.18	121.70	3.158	-1,230.52	-739.94	1,888.56	1,796.47	92.09	20.508			
5,450.00	5,126.19	3,195.00	3,219.00	21.21	121.70	2.699	-1,230.52	-739.94	1,924.03	1,839.33	84.70	22.715			
5,500.00	5,154.62	3,195.00	3,219.00	21.25	121.70	2.280	-1,230.52	-739.94	1,957.83	1,880.87	76.96	25.441			
5,550.00	5,180.35	3,195.00	3,219.00	21.27	121.70	2.001	-1,230.52	-739.94	1,989.97	1,918.72	71.25	27.931			
5,600.00	5,205.35	3,195.00	3,219.00	21.30	121.70	2.001	-1,230.52	-739.94	2,022.20	1,950.85	71.34	28.345			
5,650.00	5,230.35	3,195.00	3,219.00	21.33	121.70	2.001	-1,230.52	-739.94	2,055.14	1,983.69	71.44	28.766			
5,700.00	5,255.35	3,195.00	3,219.00	21.36	121.70	2.001	-1,230.52	-739.94	2,088.76	2,017.21	71.55	29.195			
5,750.00	5,280.20	3,195.00	3,219.00	21.40	121.70	1.955	-1,230.52	-739.94	2,122.89	2,054.23	68.67	30.916			
5,800.00	5,302.17	3,195.00	3,219.00	21.44	121.70	1.816	-1,230.52	-739.94	2,155.25	2,097.19	58.07	37.116			
5,850.00	5,320.15	3,195.00	3,219.00	21.48	121.70	1.703	-1,230.52	-739.94	2,184.91	2,137.66	47.25	46.244			
5,900.00	5,333.99	3,195.00	3,219.00	21.52	121.70	1.611	-1,230.52	-739.94	2,211.75	2,175.36	36.39	60.784			
5,950.00	5,343.59	3,195.00	3,219.00	21.56	121.70	1.536	-1,230.52	-739.94	2,235.67	2,209.95	25.71	86.943			
6,000.00	5,348.88	3,195.00	3,219.00	21.60	121.70	1.475	-1,230.52	-739.94	2,256.58	2,240.90	15.68	143.952			
6,050.00	5,350.00	3,195.00	3,219.00	21.64	121.70	1.439	-1,230.52	-739.94	2,274.58	2,263.29	11.29	201.391			
6,100.00	5,350.00	3,195.00	3,219.00	21.69	121.70	1.439	-1,230.52	-739.94	2,292.51	2,281.05	11.45	200.159			
6,150.00	5,350.00	3,195.00	3,219.00	21.77	121.70	1.439	-1,230.52	-739.94	2,311.37	2,299.75	11.62	198.951			
6,200.00	5,350.00	3,195.00	3,219.00	21.87	121.70	1.439	-1,230.52	-739.94	2,331.16	2,319.37	11.78	197.852			
6,250.00	5,350.00	3,195.00	3,219.00	21.99	121.70	1.439	-1,230.52	-739.94	2,351.84	2,339.89	11.95	196.762			
6,300.00	5,350.00	3,195.00	3,219.00	22.14	121.70	1.439	-1,230.52	-739.94	2,373.39	2,361.27	12.12	195.773			
6,350.00	5,350.00	3,195.00	3,219.00	22.32	121.70	1.439	-1,230.52	-739.94	2,395.80	2,383.50	12.30	194.800			
6,400.00	5,350.00	3,195.00	3,219.00	22.51	121.70	1.439	-1,230.52	-739.94	2,419.03	2,406.56	12.47	193.917			
6,450.00	5,350.00	3,195.00	3,219.00	22.74	121.70	1.439	-1,230.52	-739.94	2,443.06	2,430.41	12.65	193.055			
6,500.00	5,350.00	3,195.00	3,219.00	22.98	121.70	1.439	-1,230.52	-739.94	2,467.88	2,455.04	12.84	192.275			
6,550.00	5,350.00	3,195.00	3,219.00	23.24	121.70	1.439	-1,230.52	-739.94	2,493.45	2,480.43	13.02	191.516			
6,600.00	5,350.00	3,195.00	3,219.00	23.52	121.70	1.439	-1,230.52	-739.94	2,519.75	2,506.54	13.20	190.833			
6,650.00	5,350.00	3,195.00	3,219.00	23.81	121.70	1.439	-1,230.52	-739.94	2,546.76	2,533.37	13.39	190.171			
6,700.00	5,350.00	3,195.00	3,219.00	24.11	121.70	1.439	-1,230.52	-739.94	2,574.46	2,560.88	13.58	189.577			
6,750.00	5,350.00	3,195.00	3,219.00	24.43	121.70	1.439	-1,230.52	-739.94	2,602.82	2,589.05	13.77	189.004			
6,800.00	5,350.00	3,195.00	3,219.00	24.75	121.70	1.439	-1,230.52	-739.94	2,631.83	2,617.87	13.96	188.492			
6,850.00	5,350.00	3,195.00	3,219.00	25.09	121.70	1.439	-1,230.52	-739.94	2,661.46	2,647.31	14.16	188.001			
6,900.00	5,350.00	3,195.00	3,219.00	25.43	121.70	1.439	-1,230.52	-739.94	2,691.70	2,677.35	14.35	187.564			
6,950.00	5,350.00	3,195.00	3,219.00	25.79	121.70	1.439	-1,230.52	-739.94	2,722.52	2,707.97	14.55	187.147			
7,000.00	5,350.00	3,195.00	3,219.00	26.15	121.70	1.439	-1,230.52	-739.94	2,753.90	2,739.15	14.74	186.778			
7,050.00	5,350.00	3,195.00	3,219.00	26.52	121.70	1.439	-1,230.52	-739.94	2,785.82	2,770.88	14.94	186.428			
7,100.00	5,350.00	3,195.00	3,219.00	26.89	121.70	1.439	-1,230.52	-739.94	2,818.27	2,803.13	15.14	186.120			
7,150.00	5,350.00	3,195.00	3,219.00	27.28	121.70	1.439	-1,230.52	-739.94	2,851.23	2,835.89	15.34	185.830			
7,200.00	5,350.00	3,195.00	3,219.00	27.67	121.70	1.439	-1,230.52	-739.94	2,884.68	2,869.13	15.54	185.577			
7,250.00	5,350.00	3,195.00	3,219.00	28.07	121.70	1.439	-1,230.52	-739.94	2,918.60	2,902.85	15.75	185.341			
7,300.00	5,350.00	3,195.00	3,219.00	28.47	121.70	1.439	-1,230.52	-739.94	2,952.98	2,937.03	15.95	185.138			
7,350.00	5,350.00	3,195.00	3,219.00	28.88	121.70	1.439	-1,230.52	-739.94	2,987.80	2,971.64	16.15	184.949			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 200-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	4.00	0.00	0.00	40.742	399.93	344.51	527.87				
50.00	50.00	46.00	50.00	0.05	0.38	40.742	399.93	344.51	527.86	527.42	0.43	1,213.677	
100.00	100.00	96.00	100.00	0.14	0.80	40.742	399.93	344.51	527.86	526.92	0.94	562.245	
150.00	150.00	146.00	150.00	0.32	1.21	40.742	399.93	344.51	527.86	526.32	1.53	344.471	
200.00	200.00	196.00	200.00	0.50	1.62	40.742	399.93	344.51	527.86	525.73	2.13	248.298	
250.00	250.00	246.00	250.00	0.68	2.55	40.742	399.93	344.51	527.86	524.62	3.23	163.351	
300.00	300.00	296.00	300.00	0.86	3.52	40.742	399.93	344.51	527.86	523.47	4.38	120.474	CC
350.00	350.00	346.00	350.00	1.03	4.49	-175.958	399.93	344.51	528.29	522.76	5.53	95.514	ES
400.00	399.98	395.98	399.98	1.21	5.46	-175.966	399.93	344.51	529.60	522.91	6.68	79.231	
450.00	449.93	445.93	449.93	1.38	6.55	-175.980	399.93	344.51	531.77	523.82	7.95	66.881	
500.00	499.84	495.84	499.84	1.55	7.64	-175.998	399.93	344.51	534.82	525.60	9.22	58.022	
550.00	549.68	545.68	549.68	1.73	8.73	-176.022	399.93	344.51	538.73	528.25	10.48	51.396	
600.00	599.45	595.45	599.45	1.90	9.81	-176.050	399.93	344.51	543.51	531.77	11.74	46.306	
650.00	649.13	645.13	649.13	2.08	10.90	-176.083	399.93	344.51	549.16	536.17	12.99	42.289	
700.00	698.70	694.70	698.70	2.26	11.98	-176.120	399.93	344.51	555.67	541.45	14.22	39.070	
750.00	748.15	744.15	748.15	2.44	13.06	-176.161	399.93	344.51	563.04	547.60	15.45	36.449	
800.00	797.47	793.49	797.47	2.62	14.11	-176.206	399.93	344.51	571.28	554.64	16.63	34.343	
850.00	846.63	842.66	846.63	2.80	15.16	-176.253	399.93	344.51	580.37	562.57	17.80	32.596	
900.00	895.62	891.65	895.62	2.99	16.20	-176.303	399.93	344.51	590.32	571.36	18.96	31.142	
950.00	944.44	940.47	944.44	3.18	17.24	-176.356	399.93	344.51	601.12	581.03	20.09	29.918	
1,000.00	993.06	989.08	993.06	3.37	18.27	-176.410	399.93	344.51	612.77	591.56	21.21	28.894	
1,050.00	1,041.46	1,037.49	1,041.46	3.56	19.30	-176.466	399.93	344.51	625.27	602.96	22.30	28.035	
1,100.00	1,089.64	1,085.69	1,089.64	3.76	20.24	-176.523	399.93	344.51	638.60	615.31	23.29	27.415	
1,150.00	1,137.58	1,133.63	1,137.58	3.96	21.14	-176.581	399.93	344.51	652.78	628.54	24.24	26.932	
1,200.00	1,185.27	1,181.31	1,185.27	4.16	22.04	-176.640	399.93	344.51	667.79	642.63	25.16	26.540	
1,250.00	1,232.68	1,228.73	1,232.68	4.36	22.93	-176.698	399.93	344.51	683.63	657.57	26.06	26.230	
1,300.00	1,279.83	1,275.88	1,279.83	4.57	23.82	-176.764	399.93	344.51	700.25	673.26	26.99	25.948	
1,350.00	1,326.92	1,322.97	1,326.92	4.78	24.71	-176.840	399.93	344.51	717.03	689.05	27.99	25.619	
1,400.00	1,374.01	1,370.06	1,374.01	4.99	25.60	-176.912	399.93	344.51	733.82	704.83	28.99	25.312	
1,450.00	1,421.10	1,417.15	1,421.10	5.20	26.49	-176.981	399.93	344.51	750.61	720.62	30.00	25.023	
1,500.00	1,468.19	1,464.25	1,468.19	5.41	27.40	-177.047	399.93	344.51	767.40	736.38	31.02	24.737	
1,550.00	1,515.28	1,511.34	1,515.28	5.63	28.33	-177.111	399.93	344.51	784.19	752.13	32.07	24.455	
1,600.00	1,562.37	1,558.43	1,562.37	5.84	29.25	-177.171	399.93	344.51	800.99	767.88	33.11	24.191	
1,650.00	1,609.46	1,605.52	1,609.46	6.06	30.18	-177.229	399.93	344.51	817.78	783.62	34.16	23.942	
1,700.00	1,656.55	1,652.61	1,656.55	6.27	31.11	-177.285	399.93	344.51	834.57	799.37	35.20	23.708	
1,750.00	1,703.64	1,699.70	1,703.64	6.49	32.03	-177.339	399.93	344.51	851.37	815.12	36.25	23.486	
1,800.00	1,750.73	1,746.79	1,750.73	6.71	32.96	-177.390	399.93	344.51	868.16	830.86	37.30	23.276	
1,850.00	1,797.82	1,793.88	1,797.82	6.93	33.89	-177.440	399.93	344.51	884.96	846.61	38.35	23.078	
1,900.00	1,844.91	1,838.00	1,844.91	7.14	34.76	-177.485	399.93	344.51	901.76	862.42	39.34	22.921	
1,950.00	1,892.00	1,888.06	1,892.00	7.36	35.86	-177.534	399.93	344.51	918.55	877.99	40.56	22.649	
2,000.00	1,939.08	1,935.15	1,939.08	7.58	36.89	-177.578	399.93	344.51	935.35	893.64	41.71	22.426	
2,050.00	1,986.17	1,982.24	1,986.17	7.80	37.93	-177.621	399.93	344.51	952.14	909.28	42.86	22.214	
2,100.00	2,033.26	2,029.33	2,033.26	8.02	38.97	-177.662	399.93	344.51	968.94	924.92	44.02	22.013	
2,150.00	2,080.35	2,076.42	2,080.35	8.24	40.00	-177.702	399.93	344.51	985.74	940.57	45.17	21.822	
2,200.00	2,127.44	2,123.51	2,127.44	8.46	41.04	-177.740	399.93	344.51	1,002.54	956.21	46.33	21.641	
2,250.00	2,174.53	2,170.60	2,174.53	8.68	42.07	-177.777	399.93	344.51	1,019.34	971.86	47.48	21.468	
2,300.00	2,221.62	2,217.69	2,221.62	8.90	43.11	-177.814	399.93	344.51	1,036.14	987.50	48.64	21.303	
2,350.00	2,268.71	2,264.77	2,268.71	9.12	44.15	-177.848	399.93	344.51	1,052.94	1,003.14	49.79	21.146	
2,400.00	2,315.80	2,311.86	2,315.80	9.34	45.18	-177.882	399.93	344.51	1,069.74	1,018.79	50.95	20.996	
2,450.00	2,362.89	2,358.99	2,362.89	9.56	46.08	-177.915	399.93	344.51	1,086.54	1,034.56	51.98	20.903	
2,500.00	2,409.98	2,406.08	2,409.98	9.78	46.97	-177.947	399.93	344.51	1,103.34	1,050.34	53.00	20.818	
2,550.00	2,457.07	2,453.17	2,457.07	10.00	47.86	-177.978	399.93	344.51	1,120.14	1,066.12	54.02	20.737	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 200-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,500.26	2,504.16	10.22	48.75	-178.007	399.93	344.51	1,136.94	1,081.90	55.04	20.658	
2,650.00	2,551.25	2,547.35	2,551.25	10.44	49.64	-178.036	399.93	344.51	1,153.74	1,097.69	56.06	20.582	
2,700.00	2,598.34	2,594.44	2,598.34	10.67	50.53	-178.065	399.93	344.51	1,170.54	1,113.47	57.08	20.508	
2,750.00	2,645.42	2,641.53	2,645.42	10.89	51.42	-178.092	399.93	344.51	1,187.35	1,129.25	58.10	20.438	
2,800.00	2,692.51	2,688.62	2,692.51	11.11	52.31	-178.119	399.93	344.51	1,204.15	1,145.03	59.12	20.369	
2,850.00	2,739.60	2,735.71	2,739.60	11.33	53.20	-178.145	399.93	344.51	1,220.95	1,160.81	60.14	20.303	
2,900.00	2,786.69	2,782.82	2,786.69	11.55	54.02	-178.170	399.93	344.51	1,237.75	1,176.66	61.10	20.259	
2,950.00	2,833.78	2,829.91	2,833.78	11.77	54.81	-178.194	399.93	344.51	1,254.56	1,192.54	62.02	20.227	
3,000.00	2,880.87	2,877.00	2,880.87	12.00	55.60	-178.218	399.93	344.51	1,271.36	1,208.41	62.95	20.197	
3,050.00	2,927.96	2,924.09	2,927.96	12.22	56.38	-178.241	399.93	344.51	1,288.16	1,224.29	63.87	20.167	
3,100.00	2,975.05	2,971.17	2,975.05	12.44	57.17	-178.264	399.93	344.51	1,304.97	1,240.17	64.80	20.139	
3,150.00	3,022.14	3,018.26	3,022.14	12.66	57.96	-178.286	399.93	344.51	1,321.77	1,256.05	65.73	20.111	
3,200.00	3,069.23	3,065.35	3,069.23	12.89	58.75	-178.308	399.93	344.51	1,338.58	1,271.92	66.65	20.083	
3,250.00	3,116.32	3,112.44	3,116.32	13.11	59.54	-178.329	399.93	344.51	1,355.38	1,287.80	67.58	20.057	
3,300.00	3,163.41	3,159.53	3,163.41	13.33	60.32	-178.349	399.93	344.51	1,372.18	1,303.68	68.50	20.031	
3,350.00	3,210.50	3,206.62	3,210.50	13.55	61.21	-178.369	399.93	344.51	1,388.99	1,319.46	69.53	19.978	
3,400.00	3,257.59	3,253.71	3,257.59	13.78	62.11	-178.389	399.93	344.51	1,405.79	1,335.24	70.55	19.925	
3,450.00	3,304.68	3,300.80	3,304.68	14.00	63.00	-178.408	399.93	344.51	1,422.60	1,351.02	71.58	19.874	
3,500.00	3,351.76	3,347.89	3,351.76	14.22	63.90	-178.426	399.93	344.51	1,439.40	1,366.80	72.61	19.824	
3,550.00	3,398.85	3,394.98	3,398.85	14.44	64.79	-178.444	399.93	344.51	1,456.21	1,382.57	73.63	19.776	
3,600.00	3,445.94	3,442.07	3,445.94	14.67	65.69	-178.462	399.93	344.51	1,473.01	1,398.35	74.66	19.729	
3,650.00	3,493.03	3,489.16	3,493.03	14.89	66.58	-178.479	399.93	344.51	1,489.82	1,414.13	75.69	19.684	
3,700.00	3,540.12	3,536.25	3,540.12	15.11	67.47	-178.496	399.93	344.51	1,506.62	1,429.91	76.72	19.639	
3,750.00	3,587.21	3,583.34	3,587.21	15.34	68.02	-178.507	399.93	344.51	1,523.54	1,446.12	77.41	19.680	
3,800.00	3,634.30	3,630.43	3,634.30	15.56	69.26	-178.529	399.93	344.51	1,540.23	1,461.46	78.77	19.553	
3,850.00	3,681.39	3,677.52	3,681.39	15.78	70.16	-178.545	399.93	344.51	1,557.04	1,477.24	79.80	19.512	
3,900.00	3,728.48	3,724.61	3,728.48	16.01	71.05	-178.561	399.93	344.51	1,573.85	1,493.02	80.83	19.472	
3,950.00	3,775.57	3,771.70	3,775.57	16.23	71.95	-178.576	399.93	344.51	1,590.65	1,508.80	81.86	19.433	
4,000.00	3,822.66	3,818.79	3,822.66	16.45	72.84	-178.591	399.93	344.51	1,607.46	1,524.57	82.88	19.394	
4,050.00	3,869.75	3,865.87	3,869.75	16.67	73.74	-178.605	399.93	344.51	1,624.26	1,540.35	83.91	19.357	
4,100.00	3,916.84	3,912.96	3,916.84	16.90	74.63	-178.620	399.93	344.51	1,641.07	1,556.13	84.94	19.320	
4,150.00	3,963.93	3,960.05	3,963.93	17.12	75.53	-178.634	399.93	344.51	1,657.88	1,571.91	85.97	19.285	
4,200.00	4,011.02	4,007.14	4,011.02	17.34	76.42	-178.647	399.93	344.51	1,674.68	1,587.69	87.00	19.250	
4,250.00	4,058.10	4,054.23	4,058.10	17.57	77.32	-178.661	399.93	344.51	1,691.49	1,603.46	88.02	19.216	
4,300.00	4,105.19	4,101.35	4,105.19	17.79	78.21	-178.674	399.93	344.51	1,708.30	1,619.24	89.05	19.183	
4,350.00	4,152.28	4,148.44	4,152.28	18.01	79.11	-178.687	399.93	344.51	1,725.10	1,635.02	90.08	19.150	
4,400.00	4,199.37	4,195.53	4,199.37	18.24	80.00	-178.700	399.93	344.51	1,741.91	1,650.80	91.11	19.118	
4,450.00	4,246.46	4,242.61	4,246.46	18.46	80.90	-178.712	399.93	344.51	1,758.72	1,666.58	92.14	19.087	
4,500.00	4,293.55	4,289.70	4,293.55	18.68	81.79	-178.724	399.93	344.51	1,775.52	1,682.35	93.17	19.057	
4,550.00	4,340.64	4,336.79	4,340.64	18.91	82.69	-178.736	399.93	344.51	1,792.33	1,698.13	94.20	19.027	
4,600.00	4,387.73	4,383.88	4,387.73	19.13	83.58	-178.748	399.93	344.51	1,809.14	1,713.91	95.23	18.998	
4,650.00	4,434.81	4,431.06	4,434.81	19.35	84.48	-174.147	399.93	344.51	1,825.68	1,728.75	96.93	18.835	
4,700.00	4,482.67	4,478.82	4,482.67	19.57	85.39	-162.693	399.93	344.51	1,840.19	1,740.95	99.23	18.544	
4,750.00	4,530.89	4,527.04	4,530.89	19.77	86.31	-148.641	399.93	344.51	1,852.28	1,750.96	101.32	18.281	
4,800.00	4,579.34	4,560.00	4,579.34	19.95	86.93	-132.717	399.93	344.51	1,862.00	1,759.12	102.88	18.099	
4,850.00	4,627.79	4,623.95	4,627.79	20.12	88.28	-117.237	399.93	344.51	1,869.12	1,764.26	104.87	17.823	
4,900.00	4,676.00	4,672.15	4,676.00	20.28	89.30	-103.956	399.93	344.51	1,873.85	1,767.58	106.27	17.632	
4,950.00	4,723.73	4,719.88	4,723.73	20.42	90.30	-93.710	399.93	344.51	1,876.14	1,768.72	107.42	17.466	
5,000.00	4,770.75	4,766.90	4,770.75	20.54	91.29	-86.221	399.93	344.51	1,876.04	1,767.71	108.32	17.319	
5,050.00	4,816.83	4,812.98	4,816.83	20.66	92.27	-80.894	399.93	344.51	1,873.60	1,764.57	109.03	17.185	
5,100.00	4,861.74	4,857.90	4,861.74	20.76	93.21	-77.190	399.93	344.51	1,868.91	1,759.34	109.57	17.057	
5,150.00	4,905.28	4,901.43	4,905.28	20.86	94.13	-74.703	399.93	344.51	1,862.06	1,752.06	110.00	16.927	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 200-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	4,947.22	4,943.38	4,947.22	20.94	95.01	-73.148	399.93	344.51	1,853.18	1,742.78	110.39	16.787	
5,250.00	4,987.37	4,983.52	4,987.37	21.01	95.86	-72.324	399.93	344.51	1,842.38	1,731.59	110.80	16.629	
5,300.00	5,025.51	5,021.67	5,025.51	21.07	96.67	-72.089	399.93	344.51	1,829.82	1,718.55	111.27	16.445	
5,350.00	5,061.48	5,057.66	5,061.48	21.13	97.37	-72.337	399.93	344.51	1,815.65	1,703.85	111.80	16.240	
5,400.00	5,095.10	5,091.28	5,095.10	21.18	98.01	-72.985	399.93	344.51	1,800.03	1,687.57	112.46	16.005	
5,450.00	5,126.19	5,122.37	5,126.19	21.21	98.60	-73.965	399.93	344.51	1,783.16	1,669.86	113.29	15.739	
5,500.00	5,154.62	5,150.80	5,154.62	21.25	99.14	-75.220	399.93	344.51	1,765.19	1,650.92	114.27	15.447	
5,550.00	5,180.35	5,176.53	5,180.35	21.27	99.62	-76.468	399.93	344.51	1,746.41	1,631.10	115.31	15.145	
5,600.00	5,205.35	5,201.53	5,205.35	21.30	100.10	-77.215	399.93	344.51	1,728.07	1,611.85	116.22	14.869	
5,650.00	5,230.35	5,226.53	5,230.35	21.33	100.57	-77.967	399.93	344.51	1,710.63	1,593.49	117.14	14.604	
5,700.00	5,255.35	5,251.53	5,255.35	21.36	101.05	-78.723	399.93	344.51	1,694.11	1,576.07	118.04	14.352	
5,750.00	5,280.20	5,276.38	5,280.20	21.40	101.52	-79.931	399.93	344.51	1,678.52	1,559.45	119.07	14.096	
5,800.00	5,302.17	5,298.35	5,302.17	21.44	101.94	-82.195	399.93	344.51	1,663.43	1,543.10	120.34	13.823	
5,850.00	5,320.15	5,316.33	5,320.15	21.48	102.28	-84.305	399.93	344.51	1,648.90	1,527.47	121.43	13.579	
5,900.00	5,333.99	5,330.17	5,333.99	21.52	102.54	-86.205	399.93	344.51	1,635.20	1,512.89	122.31	13.369	
5,950.00	5,343.59	5,339.77	5,343.59	21.56	102.73	-87.853	399.93	344.51	1,622.55	1,499.58	122.97	13.195	
6,000.00	5,348.88	5,345.06	5,348.88	21.60	102.83	-89.214	399.93	344.51	1,611.15	1,487.73	123.42	13.054	
6,050.00	5,350.00	5,346.18	5,350.00	21.64	102.85	-90.000	399.93	344.51	1,601.17	1,477.49	123.68	12.946	
6,100.00	5,350.00	5,346.18	5,350.00	21.69	102.85	-90.000	399.93	344.51	1,592.69	1,468.83	123.86	12.859	
6,150.00	5,350.00	5,346.18	5,350.00	21.77	102.85	-90.000	399.93	344.51	1,585.74	1,461.68	124.05	12.783	
6,200.00	5,350.00	5,346.18	5,350.00	21.87	102.85	-90.000	399.93	344.51	1,580.34	1,456.09	124.25	12.719	
6,250.00	5,350.00	5,346.18	5,350.00	21.99	102.85	-90.000	399.93	344.51	1,576.51	1,452.04	124.47	12.665	
6,300.00	5,350.00	5,346.18	5,350.00	22.14	102.85	-90.000	399.93	344.51	1,574.26	1,449.57	124.70	12.625	
6,345.87	5,350.00	5,346.18	5,350.00	22.30	102.85	-90.000	399.93	344.51	1,573.59	1,448.67	124.92	12.596	
6,350.00	5,350.00	5,346.18	5,350.00	22.32	102.85	-90.000	399.93	344.51	1,573.60	1,448.66	124.94	12.594	
6,400.00	5,350.00	5,346.18	5,350.00	22.51	102.85	-90.000	399.93	344.51	1,574.53	1,449.33	125.19	12.577	
6,450.00	5,350.00	5,346.18	5,350.00	22.74	102.85	-90.000	399.93	344.51	1,577.04	1,451.58	125.46	12.570 SF	
6,500.00	5,350.00	5,346.18	5,350.00	22.98	102.85	-90.000	399.93	344.51	1,581.13	1,455.39	125.73	12.576	
6,550.00	5,350.00	5,346.18	5,350.00	23.24	102.85	-90.000	399.93	344.51	1,586.78	1,460.76	126.02	12.591	
6,600.00	5,350.00	5,346.18	5,350.00	23.52	102.85	-90.000	399.93	344.51	1,593.98	1,467.67	126.31	12.619	
6,650.00	5,350.00	5,346.18	5,350.00	23.81	102.85	-90.000	399.93	344.51	1,602.72	1,476.09	126.62	12.658	
6,700.00	5,350.00	5,346.18	5,350.00	24.11	102.85	-90.000	399.93	344.51	1,612.95	1,486.02	126.93	12.707	
6,750.00	5,350.00	5,346.18	5,350.00	24.43	102.85	-90.000	399.93	344.51	1,624.66	1,497.40	127.26	12.767	
6,800.00	5,350.00	5,346.18	5,350.00	24.75	102.85	-90.000	399.93	344.51	1,637.81	1,510.23	127.59	12.837	
6,850.00	5,350.00	5,346.18	5,350.00	25.09	102.85	-90.000	399.93	344.51	1,652.38	1,524.45	127.93	12.916	
6,900.00	5,350.00	5,346.18	5,350.00	25.43	102.85	-90.000	399.93	344.51	1,668.31	1,540.04	128.28	13.006	
6,950.00	5,350.00	5,346.18	5,350.00	25.79	102.85	-90.000	399.93	344.51	1,685.58	1,556.94	128.64	13.103	
7,000.00	5,350.00	5,346.18	5,350.00	26.15	102.85	-90.000	399.93	344.51	1,704.14	1,575.14	129.00	13.211	
7,050.00	5,350.00	5,346.18	5,350.00	26.52	102.85	-90.000	399.93	344.51	1,723.95	1,594.58	129.37	13.326	
7,100.00	5,350.00	5,346.18	5,350.00	26.89	102.85	-90.000	399.93	344.51	1,744.97	1,615.23	129.74	13.449	
7,150.00	5,350.00	5,346.18	5,350.00	27.28	102.85	-90.000	399.93	344.51	1,767.15	1,637.02	130.13	13.580	
7,200.00	5,350.00	5,346.18	5,350.00	27.67	102.85	-90.000	399.93	344.51	1,790.46	1,659.94	130.52	13.718	
7,250.00	5,350.00	5,346.18	5,350.00	28.07	102.85	-90.000	399.93	344.51	1,814.84	1,683.93	130.91	13.863	
7,300.00	5,350.00	5,346.18	5,350.00	28.47	102.85	-90.000	399.93	344.51	1,840.26	1,708.95	131.31	14.014	
7,350.00	5,350.00	5,346.18	5,350.00	28.88	102.85	-90.000	399.93	344.51	1,866.68	1,734.96	131.72	14.171	
7,400.00	5,350.00	5,346.18	5,350.00	29.29	102.85	-90.000	399.93	344.51	1,894.04	1,761.91	132.13	14.334	
7,450.00	5,350.00	5,346.18	5,350.00	29.71	102.85	-90.000	399.93	344.51	1,922.32	1,789.77	132.55	14.502	
7,500.00	5,350.00	5,346.18	5,350.00	30.13	102.85	-90.000	399.93	344.51	1,951.47	1,818.50	132.97	14.676	
7,550.00	5,350.00	5,346.18	5,350.00	30.56	102.85	-90.000	399.93	344.51	1,981.45	1,848.05	133.40	14.854	
7,600.00	5,350.00	5,346.18	5,350.00	30.99	102.85	-90.000	399.93	344.51	2,012.23	1,878.40	133.83	15.036	
7,650.00	5,350.00	5,346.18	5,350.00	31.43	102.85	-90.000	399.93	344.51	2,043.76	1,909.50	134.26	15.222	
7,700.00	5,350.00	5,346.18	5,350.00	31.87	102.85	-90.000	399.93	344.51	2,076.03	1,941.32	134.70	15.412	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 200-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	5,350.00	5,346.18	5,350.00	32.31	102.85	-90.000	399.93	344.51	2,108.98	1,973.83	135.15	15.605	
7,800.00	5,350.00	5,346.18	5,350.00	32.76	102.85	-90.000	399.93	344.51	2,142.59	2,007.00	135.59	15.802	
7,850.00	5,350.00	5,346.18	5,350.00	33.21	102.85	-90.000	399.93	344.51	2,176.84	2,040.79	136.04	16.001	
7,900.00	5,350.00	5,346.18	5,350.00	33.66	102.85	-90.000	399.93	344.51	2,211.68	2,075.19	136.49	16.203	
7,950.00	5,350.00	5,346.18	5,350.00	34.12	102.85	-90.000	399.93	344.51	2,247.10	2,110.14	136.95	16.408	
8,000.00	5,350.00	5,346.18	5,350.00	34.58	102.85	-90.000	399.93	344.51	2,283.06	2,145.65	137.41	16.615	
8,050.00	5,350.00	5,346.18	5,350.00	35.05	102.85	-90.000	399.93	344.51	2,319.54	2,181.67	137.88	16.823	
8,100.00	5,350.00	5,346.18	5,350.00	35.51	102.85	-90.000	399.93	344.51	2,356.52	2,218.18	138.34	17.034	
8,150.00	5,350.00	5,346.18	5,350.00	35.98	102.85	-90.000	399.93	344.51	2,393.97	2,255.16	138.81	17.246	
8,200.00	5,350.00	5,346.18	5,350.00	36.46	102.85	-90.000	399.93	344.51	2,431.87	2,292.59	139.28	17.460	
8,250.00	5,350.00	5,346.18	5,350.00	36.93	102.85	-90.000	399.93	344.51	2,470.21	2,330.45	139.76	17.675	
8,300.00	5,350.00	5,346.18	5,350.00	37.41	102.85	-90.000	399.93	344.51	2,508.95	2,368.72	140.23	17.892	
8,350.00	5,350.00	5,346.18	5,350.00	37.89	102.85	-90.000	399.93	344.51	2,548.09	2,407.38	140.71	18.109	
8,400.00	5,350.00	5,346.18	5,350.00	38.37	102.85	-90.000	399.93	344.51	2,587.60	2,446.41	141.19	18.327	
8,450.00	5,350.00	5,346.18	5,350.00	38.86	102.85	-90.000	399.93	344.51	2,627.47	2,485.79	141.68	18.546	
8,500.00	5,350.00	5,346.18	5,350.00	39.34	102.85	-90.000	399.93	344.51	2,667.68	2,525.52	142.16	18.765	
8,550.00	5,350.00	5,346.18	5,350.00	39.83	102.85	-90.000	399.93	344.51	2,708.21	2,565.56	142.65	18.985	
8,600.00	5,350.00	5,346.18	5,350.00	40.32	102.85	-90.000	399.93	344.51	2,749.06	2,605.92	143.14	19.206	
8,650.00	5,350.00	5,346.18	5,350.00	40.81	102.85	-90.000	399.93	344.51	2,790.20	2,646.57	143.63	19.426	
8,700.00	5,350.00	5,346.18	5,350.00	41.31	102.85	-90.000	399.93	344.51	2,831.63	2,687.51	144.12	19.647	
8,750.00	5,350.00	5,346.18	5,350.00	41.80	102.85	-90.000	399.93	344.51	2,873.34	2,728.72	144.62	19.868	
8,800.00	5,350.00	5,346.18	5,350.00	42.30	102.85	-90.000	399.93	344.51	2,915.30	2,770.19	145.11	20.090	
8,850.00	5,350.00	5,346.18	5,350.00	42.80	102.85	-90.000	399.93	344.51	2,957.51	2,811.90	145.61	20.311	
8,900.00	5,350.00	5,346.18	5,350.00	43.30	102.85	-90.000	399.93	344.51	2,999.97	2,853.85	146.11	20.532	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 485-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.00	5,350.00	5,336.11	5,350.00	26.89	153.55	90.000	-2,890.85	3,557.41	2,996.44	2,816.00	180.44	16.606		
7,150.00	5,350.00	5,336.11	5,350.00	27.28	153.55	90.000	-2,890.85	3,557.41	2,955.72	2,774.89	180.83	16.345		
7,200.00	5,350.00	5,336.11	5,350.00	27.67	153.55	90.000	-2,890.85	3,557.41	2,915.29	2,734.07	181.22	16.087		
7,250.00	5,350.00	5,336.11	5,350.00	28.07	153.55	90.000	-2,890.85	3,557.41	2,875.16	2,693.55	181.61	15.831		
7,300.00	5,350.00	5,336.11	5,350.00	28.47	153.55	90.000	-2,890.85	3,557.41	2,835.34	2,653.33	182.01	15.578		
7,350.00	5,350.00	5,336.11	5,350.00	28.88	153.55	90.000	-2,890.85	3,557.41	2,795.85	2,613.43	182.42	15.326		
7,400.00	5,350.00	5,336.11	5,350.00	29.29	153.55	90.000	-2,890.85	3,557.41	2,756.70	2,573.87	182.83	15.078		
7,450.00	5,350.00	5,336.11	5,350.00	29.71	153.55	90.000	-2,890.85	3,557.41	2,717.91	2,534.66	183.25	14.832		
7,500.00	5,350.00	5,336.11	5,350.00	30.13	153.55	90.000	-2,890.85	3,557.41	2,679.49	2,495.82	183.67	14.589		
7,550.00	5,350.00	5,336.11	5,350.00	30.56	153.55	90.000	-2,890.85	3,557.41	2,641.46	2,457.36	184.10	14.348		
7,600.00	5,350.00	5,336.11	5,350.00	30.99	153.55	90.000	-2,890.85	3,557.41	2,603.83	2,419.30	184.53	14.111		
7,650.00	5,350.00	5,336.11	5,350.00	31.43	153.55	90.000	-2,890.85	3,557.41	2,566.62	2,381.66	184.96	13.876		
7,700.00	5,350.00	5,336.11	5,350.00	31.87	153.55	90.000	-2,890.85	3,557.41	2,529.86	2,344.46	185.40	13.645		
7,750.00	5,350.00	5,336.11	5,350.00	32.31	153.55	90.000	-2,890.85	3,557.41	2,493.55	2,307.71	185.85	13.417		
7,800.00	5,350.00	5,336.11	5,350.00	32.76	153.55	90.000	-2,890.85	3,557.41	2,457.73	2,271.44	186.29	13.193		
7,850.00	5,350.00	5,336.11	5,350.00	33.21	153.55	90.000	-2,890.85	3,557.41	2,422.41	2,235.66	186.74	12.972		
7,900.00	5,350.00	5,336.11	5,350.00	33.66	153.55	90.000	-2,890.85	3,557.41	2,387.61	2,200.42	187.19	12.755		
7,950.00	5,350.00	5,336.11	5,350.00	34.12	153.55	90.000	-2,890.85	3,557.41	2,353.36	2,165.71	187.65	12.541		
8,000.00	5,350.00	5,336.11	5,350.00	34.58	153.55	90.000	-2,890.85	3,557.41	2,319.68	2,131.57	188.11	12.331		
8,050.00	5,350.00	5,336.11	5,350.00	35.05	153.55	90.000	-2,890.85	3,557.41	2,286.60	2,098.03	188.58	12.126		
8,100.00	5,350.00	5,336.11	5,350.00	35.51	153.55	90.000	-2,890.85	3,557.41	2,254.15	2,065.11	189.04	11.924		
8,150.00	5,350.00	5,336.11	5,350.00	35.98	153.55	90.000	-2,890.85	3,557.41	2,222.34	2,032.83	189.51	11.727		
8,200.00	5,350.00	5,336.11	5,350.00	36.46	153.55	90.000	-2,890.85	3,557.41	2,191.22	2,001.24	189.98	11.534		
8,250.00	5,350.00	5,336.11	5,350.00	36.93	153.55	90.000	-2,890.85	3,557.41	2,160.80	1,970.35	190.46	11.345		
8,300.00	5,350.00	5,336.11	5,350.00	37.41	153.55	90.000	-2,890.85	3,557.41	2,131.12	1,940.19	190.93	11.162		
8,350.00	5,350.00	5,336.11	5,350.00	37.89	153.55	90.000	-2,890.85	3,557.41	2,102.22	1,910.81	191.41	10.983		
8,400.00	5,350.00	5,336.11	5,350.00	38.37	153.55	90.000	-2,890.85	3,557.41	2,074.11	1,882.22	191.89	10.809		
8,450.00	5,350.00	5,336.11	5,350.00	38.86	153.55	90.000	-2,890.85	3,557.41	2,046.84	1,854.47	192.37	10.640		
8,500.00	5,350.00	5,336.11	5,350.00	39.34	153.55	90.000	-2,890.85	3,557.41	2,020.44	1,827.58	192.86	10.476		
8,550.00	5,350.00	5,336.11	5,350.00	39.83	153.55	90.000	-2,890.85	3,557.41	1,994.95	1,801.60	193.35	10.318		
8,600.00	5,350.00	5,336.11	5,350.00	40.32	153.55	90.000	-2,890.85	3,557.41	1,970.39	1,776.55	193.84	10.165		
8,650.00	5,350.00	5,336.11	5,350.00	40.81	153.55	90.000	-2,890.85	3,557.41	1,946.81	1,752.48	194.33	10.018		
8,700.00	5,350.00	5,336.11	5,350.00	41.31	153.55	90.000	-2,890.85	3,557.41	1,924.24	1,729.42	194.82	9.877		
8,750.00	5,350.00	5,336.11	5,350.00	41.80	153.55	90.000	-2,890.85	3,557.41	1,902.71	1,707.40	195.32	9.742		
8,800.00	5,350.00	5,336.11	5,350.00	42.30	153.55	90.000	-2,890.85	3,557.41	1,882.27	1,686.46	195.81	9.613		
8,850.00	5,350.00	5,336.11	5,350.00	42.80	153.55	90.000	-2,890.85	3,557.41	1,862.95	1,666.63	196.31	9.490		
8,900.00	5,350.00	5,336.11	5,350.00	43.30	153.55	90.000	-2,890.85	3,557.41	1,844.77	1,647.96	196.81	9.373		
8,950.00	5,350.00	5,336.11	5,350.00	43.80	153.55	90.000	-2,890.85	3,557.41	1,827.79	1,630.48	197.31	9.263		
9,000.00	5,350.00	5,336.11	5,350.00	44.30	153.55	90.000	-2,890.85	3,557.41	1,812.03	1,614.21	197.82	9.160		
9,050.00	5,350.00	5,336.11	5,350.00	44.81	153.55	90.000	-2,890.85	3,557.41	1,797.52	1,599.20	198.32	9.064		
9,100.00	5,350.00	5,336.11	5,350.00	45.32	153.55	90.000	-2,890.85	3,557.41	1,784.29	1,585.46	198.83	8.974		
9,150.00	5,350.00	5,336.11	5,350.00	45.82	153.55	90.000	-2,890.85	3,557.41	1,772.38	1,573.04	199.34	8.891		
9,200.00	5,350.00	5,336.11	5,350.00	46.33	153.55	90.000	-2,890.85	3,557.41	1,761.80	1,561.96	199.84	8.816		
9,250.00	5,350.00	5,336.11	5,350.00	46.84	153.55	90.000	-2,890.85	3,557.41	1,752.59	1,552.24	200.35	8.747		
9,300.00	5,350.00	5,336.11	5,350.00	47.35	153.55	90.000	-2,890.85	3,557.41	1,744.76	1,543.90	200.87	8.686		
9,350.00	5,350.00	5,336.11	5,350.00	47.87	153.55	90.000	-2,890.85	3,557.41	1,738.34	1,536.96	201.38	8.632		
9,400.00	5,350.00	5,336.11	5,350.00	48.38	153.55	90.000	-2,890.85	3,557.41	1,733.34	1,531.44	201.89	8.585		
9,450.00	5,350.00	5,336.11	5,350.00	48.90	153.55	90.000	-2,890.85	3,557.41	1,729.76	1,527.36	202.41	8.546		
9,500.00	5,350.00	5,336.11	5,350.00	49.41	153.55	90.000	-2,890.85	3,557.41	1,727.63	1,524.71	202.92	8.514		
9,548.74	5,350.00	5,336.11	5,350.00	49.92	153.55	90.000	-2,890.85	3,557.41	1,726.94	1,523.52	203.43	8.489 CC		
9,550.00	5,350.00	5,336.11	5,350.00	49.93	153.55	90.000	-2,890.85	3,557.41	1,726.94	1,523.50	203.44	8.489 ES		
9,600.00	5,350.00	5,336.11	5,350.00	50.45	153.55	90.000	-2,890.85	3,557.41	1,727.70	1,523.75	203.96	8.471		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:		0.00 usft
Survey Program: 485-INC-ONLY													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
9,650.00	5,350.00	5,336.11	5,350.00	50.97	153.55	90.000	-2,890.85	3,557.41	1,729.91	1,525.43	204.48	8.460	8.457 SF		
9,700.00	5,350.00	5,336.11	5,350.00	51.48	153.55	90.000	-2,890.85	3,557.41	1,733.55	1,528.56	204.99	8.457			
9,750.00	5,350.00	5,336.11	5,350.00	52.01	153.55	90.000	-2,890.85	3,557.41	1,738.63	1,533.11	205.52	8.460			
9,800.00	5,350.00	5,336.11	5,350.00	52.53	153.55	90.000	-2,890.85	3,557.41	1,745.12	1,539.09	206.04	8.470			
9,850.00	5,350.00	5,336.11	5,350.00	53.05	153.55	90.000	-2,890.85	3,557.41	1,753.02	1,546.46	206.56	8.487			
9,900.00	5,350.00	5,336.11	5,350.00	53.57	153.55	90.000	-2,890.85	3,557.41	1,762.30	1,555.22	207.08	8.510			
9,950.00	5,350.00	5,336.11	5,350.00	54.10	153.55	90.000	-2,890.85	3,557.41	1,772.94	1,565.34	207.61	8.540			
10,000.00	5,350.00	5,336.11	5,350.00	54.62	153.55	90.000	-2,890.85	3,557.41	1,784.93	1,576.79	208.13	8.576			
10,050.00	5,350.00	5,336.11	5,350.00	55.15	153.55	90.000	-2,890.85	3,557.41	1,798.22	1,589.56	208.66	8.618			
10,100.00	5,350.00	5,336.11	5,350.00	55.67	153.55	90.000	-2,890.85	3,557.41	1,812.79	1,603.61	209.18	8.666			
10,150.00	5,350.00	5,336.11	5,350.00	56.20	153.55	90.000	-2,890.85	3,557.41	1,828.62	1,618.91	209.71	8.720			
10,200.00	5,350.00	5,336.11	5,350.00	56.73	153.55	90.000	-2,890.85	3,557.41	1,845.66	1,635.42	210.24	8.779			
10,250.00	5,350.00	5,336.11	5,350.00	57.26	153.55	90.000	-2,890.85	3,557.41	1,863.89	1,653.12	210.77	8.843			
10,300.00	5,350.00	5,336.11	5,350.00	57.79	153.55	90.000	-2,890.85	3,557.41	1,883.27	1,671.98	211.30	8.913			
10,350.00	5,350.00	5,336.11	5,350.00	58.32	153.55	90.000	-2,890.85	3,557.41	1,903.77	1,691.94	211.83	8.987			
10,400.00	5,350.00	5,336.11	5,350.00	58.85	153.55	90.000	-2,890.85	3,557.41	1,925.35	1,712.99	212.36	9.067			
10,450.00	5,350.00	5,336.11	5,350.00	59.38	153.55	90.000	-2,890.85	3,557.41	1,947.97	1,735.08	212.89	9.150			
10,500.00	5,350.00	5,336.11	5,350.00	59.91	153.55	90.000	-2,890.85	3,557.41	1,971.60	1,758.18	213.42	9.238			
10,550.00	5,350.00	5,336.11	5,350.00	60.44	153.55	90.000	-2,890.85	3,557.41	1,996.21	1,782.26	213.95	9.330			
10,600.00	5,350.00	5,336.11	5,350.00	60.97	153.55	90.000	-2,890.85	3,557.41	2,021.75	1,807.27	214.48	9.426			
10,650.00	5,350.00	5,336.11	5,350.00	61.51	153.55	90.000	-2,890.85	3,557.41	2,048.19	1,833.18	215.02	9.526			
10,700.00	5,350.00	5,336.11	5,350.00	62.04	153.55	90.000	-2,890.85	3,557.41	2,075.50	1,859.95	215.55	9.629			
10,750.00	5,350.00	5,336.11	5,350.00	62.58	153.55	90.000	-2,890.85	3,557.41	2,103.65	1,887.57	216.08	9.735			
10,800.00	5,350.00	5,336.11	5,350.00	63.11	153.55	90.000	-2,890.85	3,557.41	2,132.60	1,915.98	216.62	9.845			
10,850.00	5,350.00	5,336.11	5,350.00	63.65	153.55	90.000	-2,890.85	3,557.41	2,162.31	1,945.16	217.15	9.957			
10,900.00	5,350.00	5,336.11	5,350.00	64.18	153.55	90.000	-2,890.85	3,557.41	2,192.77	1,975.08	217.69	10.073			
10,950.00	5,350.00	5,336.11	5,350.00	64.72	153.55	90.000	-2,890.85	3,557.41	2,223.93	2,005.70	218.23	10.191			
11,000.00	5,350.00	5,336.11	5,350.00	65.25	153.55	90.000	-2,890.85	3,557.41	2,255.76	2,037.00	218.76	10.311			
11,050.00	5,350.00	5,336.11	5,350.00	65.79	153.55	90.000	-2,890.85	3,557.41	2,288.25	2,068.95	219.30	10.434			
11,100.00	5,350.00	5,336.11	5,350.00	66.33	153.55	90.000	-2,890.85	3,557.41	2,321.36	2,101.52	219.84	10.559			
11,150.00	5,350.00	5,336.11	5,350.00	66.87	153.55	90.000	-2,890.85	3,557.41	2,355.07	2,134.69	220.38	10.687			
11,165.49	5,350.00	5,336.11	5,350.00	67.03	153.55	90.000	-2,890.85	3,557.41	2,365.63	2,145.09	220.54	10.726			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 202-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,100.00	5,350.00	5,052.00	5,066.29	26.89	132.22	79.957	-2,765.77	3,581.92	2,960.67	2,803.20	157.47	18.802		
7,150.00	5,350.00	5,052.00	5,066.29	27.28	132.22	79.957	-2,765.77	3,581.92	2,919.02	2,761.17	157.85	18.493		
7,200.00	5,350.00	5,052.00	5,066.29	27.67	132.22	79.957	-2,765.77	3,581.92	2,877.64	2,719.42	158.23	18.187		
7,250.00	5,350.00	5,052.00	5,066.29	28.07	132.22	79.957	-2,765.77	3,581.92	2,836.54	2,677.93	158.61	17.883		
7,300.00	5,350.00	5,052.00	5,066.29	28.47	132.22	79.957	-2,765.77	3,581.92	2,795.73	2,636.72	159.00	17.583		
7,350.00	5,350.00	5,052.00	5,066.29	28.88	132.22	79.957	-2,765.77	3,581.92	2,755.22	2,595.82	159.40	17.284		
7,400.00	5,350.00	5,052.00	5,066.29	29.29	132.22	79.957	-2,765.77	3,581.92	2,715.03	2,555.22	159.80	16.990		
7,450.00	5,350.00	5,052.00	5,066.29	29.71	132.22	79.957	-2,765.77	3,581.92	2,675.17	2,514.95	160.21	16.697		
7,500.00	5,350.00	5,052.00	5,066.29	30.13	132.22	79.957	-2,765.77	3,581.92	2,635.65	2,475.02	160.62	16.409		
7,550.00	5,350.00	5,052.00	5,066.29	30.56	132.22	79.957	-2,765.77	3,581.92	2,596.49	2,435.45	161.04	16.123		
7,600.00	5,350.00	5,052.00	5,066.29	30.99	132.22	79.957	-2,765.77	3,581.92	2,557.72	2,396.26	161.46	15.841		
7,650.00	5,350.00	5,052.00	5,066.29	31.43	132.22	79.957	-2,765.77	3,581.92	2,519.34	2,357.45	161.89	15.562		
7,700.00	5,350.00	5,052.00	5,066.29	31.87	132.22	79.957	-2,765.77	3,581.92	2,481.37	2,319.05	162.32	15.287		
7,750.00	5,350.00	5,052.00	5,066.29	32.31	132.22	79.957	-2,765.77	3,581.92	2,443.84	2,281.08	162.75	15.016		
7,800.00	5,350.00	5,052.00	5,066.29	32.76	132.22	79.957	-2,765.77	3,581.92	2,406.75	2,243.57	163.19	14.749		
7,850.00	5,350.00	5,052.00	5,066.29	33.21	132.22	79.957	-2,765.77	3,581.92	2,370.15	2,206.52	163.63	14.485		
7,900.00	5,350.00	5,052.00	5,066.29	33.66	132.22	79.957	-2,765.77	3,581.92	2,334.04	2,169.97	164.07	14.226		
7,950.00	5,350.00	5,052.00	5,066.29	34.12	132.22	79.957	-2,765.77	3,581.92	2,298.45	2,133.93	164.52	13.971		
8,000.00	5,350.00	5,052.00	5,066.29	34.58	132.22	79.957	-2,765.77	3,581.92	2,263.41	2,098.44	164.97	13.720		
8,050.00	5,350.00	5,052.00	5,066.29	35.05	132.22	79.957	-2,765.77	3,581.92	2,228.93	2,063.51	165.42	13.474		
8,100.00	5,350.00	5,052.00	5,066.29	35.51	132.22	79.957	-2,765.77	3,581.92	2,195.06	2,029.18	165.88	13.233		
8,150.00	5,350.00	5,052.00	5,066.29	35.98	132.22	79.957	-2,765.77	3,581.92	2,161.81	1,995.47	166.34	12.997		
8,200.00	5,350.00	5,052.00	5,066.29	36.46	132.22	79.957	-2,765.77	3,581.92	2,129.22	1,962.42	166.80	12.765		
8,250.00	5,350.00	5,052.00	5,066.29	36.93	132.22	79.957	-2,765.77	3,581.92	2,097.31	1,930.05	167.26	12.539		
8,300.00	5,350.00	5,052.00	5,066.29	37.41	132.22	79.957	-2,765.77	3,581.92	2,066.12	1,898.39	167.73	12.318		
8,350.00	5,350.00	5,052.00	5,066.29	37.89	132.22	79.957	-2,765.77	3,581.92	2,035.67	1,867.48	168.20	12.103		
8,400.00	5,350.00	5,052.00	5,066.29	38.37	132.22	79.957	-2,765.77	3,581.92	2,006.02	1,837.35	168.67	11.893		
8,450.00	5,350.00	5,052.00	5,066.29	38.86	132.22	79.957	-2,765.77	3,581.92	1,977.18	1,808.04	169.14	11.690		
8,500.00	5,350.00	5,052.00	5,066.29	39.34	132.22	79.957	-2,765.77	3,581.92	1,949.20	1,779.58	169.62	11.492		
8,550.00	5,350.00	5,052.00	5,066.29	39.83	132.22	79.957	-2,765.77	3,581.92	1,922.11	1,752.02	170.09	11.300		
8,600.00	5,350.00	5,052.00	5,066.29	40.32	132.22	79.957	-2,765.77	3,581.92	1,895.96	1,725.38	170.57	11.115		
8,650.00	5,350.00	5,052.00	5,066.29	40.81	132.22	79.957	-2,765.77	3,581.92	1,870.77	1,699.72	171.06	10.937		
8,700.00	5,350.00	5,052.00	5,066.29	41.31	132.22	79.957	-2,765.77	3,581.92	1,846.60	1,675.06	171.54	10.765		
8,750.00	5,350.00	5,052.00	5,066.29	41.80	132.22	79.957	-2,765.77	3,581.92	1,823.48	1,651.45	172.02	10.600		
8,800.00	5,350.00	5,052.00	5,066.29	42.30	132.22	79.957	-2,765.77	3,581.92	1,801.44	1,628.93	172.51	10.443		
8,850.00	5,350.00	5,052.00	5,066.29	42.80	132.22	79.957	-2,765.77	3,581.92	1,780.54	1,607.54	173.00	10.292		
8,900.00	5,350.00	5,052.00	5,066.29	43.30	132.22	79.957	-2,765.77	3,581.92	1,760.82	1,587.33	173.49	10.149		
8,950.00	5,350.00	5,052.00	5,066.29	43.80	132.22	79.957	-2,765.77	3,581.92	1,742.30	1,568.32	173.98	10.014		
9,000.00	5,350.00	5,052.00	5,066.29	44.30	132.22	79.957	-2,765.77	3,581.92	1,725.04	1,550.56	174.47	9.887		
9,050.00	5,350.00	5,052.00	5,066.29	44.81	132.22	79.957	-2,765.77	3,581.92	1,709.06	1,534.09	174.97	9.768		
9,100.00	5,350.00	5,052.00	5,066.29	45.32	132.22	79.957	-2,765.77	3,581.92	1,694.41	1,518.94	175.47	9.657		
9,150.00	5,350.00	5,052.00	5,066.29	45.82	132.22	79.957	-2,765.77	3,581.92	1,681.12	1,505.15	175.96	9.554		
9,200.00	5,350.00	5,052.00	5,066.29	46.33	132.22	79.957	-2,765.77	3,581.92	1,669.22	1,492.76	176.46	9.459		
9,250.00	5,350.00	5,052.00	5,066.29	46.84	132.22	79.957	-2,765.77	3,581.92	1,658.74	1,481.78	176.96	9.373		
9,300.00	5,350.00	5,052.00	5,066.29	47.35	132.22	79.957	-2,765.77	3,581.92	1,649.72	1,472.25	177.46	9.296		
9,350.00	5,350.00	5,052.00	5,066.29	47.87	132.22	79.957	-2,765.77	3,581.92	1,642.16	1,464.20	177.97	9.227		
9,400.00	5,350.00	5,052.00	5,066.29	48.38	132.22	79.957	-2,765.77	3,581.92	1,636.11	1,457.64	178.47	9.167		
9,450.00	5,350.00	5,052.00	5,066.29	48.90	132.22	79.957	-2,765.77	3,581.92	1,631.56	1,452.58	178.98	9.116		
9,500.00	5,350.00	5,052.00	5,066.29	49.41	132.22	79.957	-2,765.77	3,581.92	1,628.53	1,449.05	179.48	9.074		
9,550.00	5,350.00	5,052.00	5,066.29	49.93	132.22	79.957	-2,765.77	3,581.92	1,627.04	1,447.05	179.99	9.040		
9,573.63	5,350.00	5,052.00	5,066.29	50.17	132.22	79.957	-2,765.77	3,581.92	1,626.87	1,446.64	180.23	9.027 CC		
9,600.00	5,350.00	5,052.00	5,066.29	50.45	132.22	79.957	-2,765.77	3,581.92	1,627.08	1,446.58	180.50	9.015 ES		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 202-INC-ONLY												Offset Well Error:	0.00 usft
OCHO_TESORO OFFSETS - MCINTYRE A #17 - Wellbore #1 - Wellbore #1													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,650.00	5,350.00	5,052.00	5,066.29	50.97	132.22	79.957	-2,765.77	3,581.92	1,628.66	1,447.65	181.01	8.998	
9,700.00	5,350.00	5,052.00	5,066.29	51.48	132.22	79.957	-2,765.77	3,581.92	1,631.77	1,450.25	181.51	8.990 SF	
9,750.00	5,350.00	5,052.00	5,066.29	52.01	132.22	79.957	-2,765.77	3,581.92	1,636.40	1,454.37	182.03	8.990	
9,800.00	5,350.00	5,052.00	5,066.29	52.53	132.22	79.957	-2,765.77	3,581.92	1,642.54	1,460.00	182.54	8.998	
9,850.00	5,350.00	5,052.00	5,066.29	53.05	132.22	79.957	-2,765.77	3,581.92	1,650.17	1,467.12	183.05	9.015	
9,900.00	5,350.00	5,052.00	5,066.29	53.57	132.22	79.957	-2,765.77	3,581.92	1,659.28	1,475.72	183.56	9.039	
9,950.00	5,350.00	5,052.00	5,066.29	54.10	132.22	79.957	-2,765.77	3,581.92	1,669.83	1,485.76	184.08	9.071	
10,000.00	5,350.00	5,052.00	5,066.29	54.62	132.22	79.957	-2,765.77	3,581.92	1,681.81	1,497.22	184.59	9.111	
10,050.00	5,350.00	5,052.00	5,066.29	55.15	132.22	79.957	-2,765.77	3,581.92	1,695.18	1,510.07	185.11	9.158	
10,100.00	5,350.00	5,052.00	5,066.29	55.67	132.22	79.957	-2,765.77	3,581.92	1,709.90	1,524.27	185.63	9.211	
10,150.00	5,350.00	5,052.00	5,066.29	56.20	132.22	79.957	-2,765.77	3,581.92	1,725.95	1,539.80	186.14	9.272	
10,200.00	5,350.00	5,052.00	5,066.29	56.73	132.22	79.957	-2,765.77	3,581.92	1,743.28	1,556.62	186.66	9.339	
10,250.00	5,350.00	5,052.00	5,066.29	57.26	132.22	79.957	-2,765.77	3,581.92	1,761.86	1,574.68	187.18	9.413	
10,300.00	5,350.00	5,052.00	5,066.29	57.79	132.22	79.957	-2,765.77	3,581.92	1,781.66	1,593.96	187.70	9.492	
10,350.00	5,350.00	5,052.00	5,066.29	58.32	132.22	79.957	-2,765.77	3,581.92	1,802.62	1,614.40	188.22	9.577	
10,400.00	5,350.00	5,052.00	5,066.29	58.85	132.22	79.957	-2,765.77	3,581.92	1,824.71	1,635.97	188.74	9.668	
10,450.00	5,350.00	5,052.00	5,066.29	59.38	132.22	79.957	-2,765.77	3,581.92	1,847.89	1,658.63	189.26	9.764	
10,500.00	5,350.00	5,052.00	5,066.29	59.91	132.22	79.957	-2,765.77	3,581.92	1,872.12	1,682.34	189.79	9.864	
10,550.00	5,350.00	5,052.00	5,066.29	60.44	132.22	79.957	-2,765.77	3,581.92	1,897.36	1,707.05	190.31	9.970	
10,600.00	5,350.00	5,052.00	5,066.29	60.97	132.22	79.957	-2,765.77	3,581.92	1,923.57	1,732.74	190.83	10.080	
10,650.00	5,350.00	5,052.00	5,066.29	61.51	132.22	79.957	-2,765.77	3,581.92	1,950.71	1,759.35	191.36	10.194	
10,700.00	5,350.00	5,052.00	5,066.29	62.04	132.22	79.957	-2,765.77	3,581.92	1,978.74	1,786.85	191.88	10.312	
10,750.00	5,350.00	5,052.00	5,066.29	62.58	132.22	79.957	-2,765.77	3,581.92	2,007.62	1,815.21	192.41	10.434	
10,800.00	5,350.00	5,052.00	5,066.29	63.11	132.22	79.957	-2,765.77	3,581.92	2,037.32	1,844.39	192.93	10.560	
10,850.00	5,350.00	5,052.00	5,066.29	63.65	132.22	79.957	-2,765.77	3,581.92	2,067.80	1,874.34	193.46	10.689	
10,900.00	5,350.00	5,052.00	5,066.29	64.18	132.22	79.957	-2,765.77	3,581.92	2,099.03	1,905.05	193.99	10.821	
10,950.00	5,350.00	5,052.00	5,066.29	64.72	132.22	79.957	-2,765.77	3,581.92	2,130.98	1,936.47	194.51	10.955	
11,000.00	5,350.00	5,052.00	5,066.29	65.25	132.22	79.957	-2,765.77	3,581.92	2,163.61	1,968.57	195.04	11.093	
11,050.00	5,350.00	5,052.00	5,066.29	65.79	132.22	79.957	-2,765.77	3,581.92	2,196.90	2,001.33	195.57	11.233	
11,100.00	5,350.00	5,052.00	5,066.29	66.33	132.22	79.957	-2,765.77	3,581.92	2,230.80	2,034.71	196.10	11.376	
11,150.00	5,350.00	5,052.00	5,066.29	66.87	132.22	79.957	-2,765.77	3,581.92	2,265.31	2,068.68	196.62	11.521	
11,165.49	5,350.00	5,052.00	5,066.29	67.03	132.22	79.957	-2,765.77	3,581.92	2,276.12	2,079.33	196.79	11.566	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 220-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,300.00	5,350.00	5,350.00	5,353.71	37.41	110.60	90.118	-2,955.19	4,688.58	2,980.61	2,832.64	147.98	20.142	
8,350.00	5,350.00	5,350.00	5,353.71	37.89	110.60	90.118	-2,955.19	4,688.58	2,940.85	2,792.39	148.46	19.809	
8,400.00	5,350.00	5,350.00	5,353.71	38.37	110.60	90.118	-2,955.19	4,688.58	2,901.40	2,752.46	148.94	19.481	
8,450.00	5,350.00	5,350.00	5,353.71	38.86	110.60	90.118	-2,955.19	4,688.58	2,862.28	2,712.86	149.42	19.156	
8,500.00	5,350.00	5,350.00	5,353.71	39.34	110.60	90.118	-2,955.19	4,688.58	2,823.51	2,673.60	149.91	18.835	
8,550.00	5,350.00	5,350.00	5,353.71	39.83	110.60	90.118	-2,955.19	4,688.58	2,785.09	2,634.69	150.40	18.518	
8,600.00	5,350.00	5,350.00	5,353.71	40.32	110.60	90.118	-2,955.19	4,688.58	2,747.04	2,596.16	150.88	18.206	
8,650.00	5,350.00	5,350.00	5,353.71	40.81	110.60	90.118	-2,955.19	4,688.58	2,709.39	2,558.01	151.38	17.898	
8,700.00	5,350.00	5,350.00	5,353.71	41.31	110.60	90.118	-2,955.19	4,688.58	2,672.13	2,520.26	151.87	17.595	
8,750.00	5,350.00	5,350.00	5,353.71	41.80	110.60	90.118	-2,955.19	4,688.58	2,635.30	2,482.94	152.37	17.296	
8,800.00	5,350.00	5,350.00	5,353.71	42.30	110.60	90.118	-2,955.19	4,688.58	2,598.91	2,446.05	152.86	17.002	
8,850.00	5,350.00	5,350.00	5,353.71	42.80	110.60	90.118	-2,955.19	4,688.58	2,562.98	2,409.62	153.36	16.712	
8,900.00	5,350.00	5,350.00	5,353.71	43.30	110.60	90.118	-2,955.19	4,688.58	2,527.53	2,373.67	153.86	16.427	
8,950.00	5,350.00	5,350.00	5,353.71	43.80	110.60	90.118	-2,955.19	4,688.58	2,492.58	2,338.21	154.36	16.147	
9,000.00	5,350.00	5,350.00	5,353.71	44.30	110.60	90.118	-2,955.19	4,688.58	2,458.14	2,303.28	154.87	15.873	
9,050.00	5,350.00	5,350.00	5,353.71	44.81	110.60	90.118	-2,955.19	4,688.58	2,424.25	2,268.88	155.37	15.603	
9,100.00	5,350.00	5,350.00	5,353.71	45.32	110.60	90.118	-2,955.19	4,688.58	2,390.93	2,235.05	155.88	15.339	
9,150.00	5,350.00	5,350.00	5,353.71	45.82	110.60	90.118	-2,955.19	4,688.58	2,358.19	2,201.80	156.38	15.079	
9,200.00	5,350.00	5,350.00	5,353.71	46.33	110.60	90.118	-2,955.19	4,688.58	2,326.07	2,169.17	156.89	14.826	
9,250.00	5,350.00	5,350.00	5,353.71	46.84	110.60	90.118	-2,955.19	4,688.58	2,294.58	2,137.18	157.40	14.578	
9,300.00	5,350.00	5,350.00	5,353.71	47.35	110.60	90.118	-2,955.19	4,688.58	2,263.77	2,105.85	157.91	14.335	
9,350.00	5,350.00	5,350.00	5,353.71	47.87	110.60	90.118	-2,955.19	4,688.58	2,233.65	2,075.22	158.43	14.099	
9,400.00	5,350.00	5,350.00	5,353.71	48.38	110.60	90.118	-2,955.19	4,688.58	2,204.25	2,045.31	158.94	13.868	
9,450.00	5,350.00	5,350.00	5,353.71	48.90	110.60	90.118	-2,955.19	4,688.58	2,175.60	2,016.14	159.45	13.644	
9,500.00	5,350.00	5,350.00	5,353.71	49.41	110.60	90.118	-2,955.19	4,688.58	2,147.73	1,987.76	159.97	13.426	
9,550.00	5,350.00	5,350.00	5,353.71	49.93	110.60	90.118	-2,955.19	4,688.58	2,120.68	1,960.19	160.49	13.214	
9,600.00	5,350.00	5,350.00	5,353.71	50.45	110.60	90.118	-2,955.19	4,688.58	2,094.47	1,933.47	161.00	13.009	
9,650.00	5,350.00	5,350.00	5,353.71	50.97	110.60	90.118	-2,955.19	4,688.58	2,069.14	1,907.62	161.52	12.810	
9,700.00	5,350.00	5,350.00	5,353.71	51.48	110.60	90.118	-2,955.19	4,688.58	2,044.72	1,882.68	162.04	12.618	
9,750.00	5,350.00	5,350.00	5,353.71	52.01	110.60	90.118	-2,955.19	4,688.58	2,021.24	1,858.67	162.56	12.433	
9,800.00	5,350.00	5,350.00	5,353.71	52.53	110.60	90.118	-2,955.19	4,688.58	1,998.73	1,835.65	163.09	12.256	
9,850.00	5,350.00	5,350.00	5,353.71	53.05	110.60	90.118	-2,955.19	4,688.58	1,977.24	1,813.63	163.61	12.085	
9,900.00	5,350.00	5,350.00	5,353.71	53.57	110.60	90.118	-2,955.19	4,688.58	1,956.78	1,792.65	164.13	11.922	
9,950.00	5,350.00	5,350.00	5,353.71	54.10	110.60	90.118	-2,955.19	4,688.58	1,937.40	1,772.74	164.66	11.766	
10,000.00	5,350.00	5,350.00	5,353.71	54.62	110.60	90.118	-2,955.19	4,688.58	1,919.13	1,753.95	165.18	11.618	
10,050.00	5,350.00	5,350.00	5,353.71	55.15	110.60	90.118	-2,955.19	4,688.58	1,901.99	1,736.29	165.71	11.478	
10,100.00	5,350.00	5,350.00	5,353.71	55.67	110.60	90.118	-2,955.19	4,688.58	1,886.03	1,719.80	166.23	11.346	
10,150.00	5,350.00	5,350.00	5,353.71	56.20	110.60	90.118	-2,955.19	4,688.58	1,871.26	1,704.51	166.76	11.221	
10,200.00	5,350.00	5,350.00	5,353.71	56.73	110.60	90.118	-2,955.19	4,688.58	1,857.73	1,690.44	167.29	11.105	
10,250.00	5,350.00	5,350.00	5,353.71	57.26	110.60	90.118	-2,955.19	4,688.58	1,845.45	1,677.64	167.82	10.997	
10,300.00	5,350.00	5,350.00	5,353.71	57.79	110.60	90.118	-2,955.19	4,688.58	1,834.45	1,666.11	168.34	10.897	
10,350.00	5,350.00	5,350.00	5,353.71	58.32	110.60	90.118	-2,955.19	4,688.58	1,824.76	1,655.89	168.87	10.805	
10,400.00	5,350.00	5,350.00	5,353.71	58.85	110.60	90.118	-2,955.19	4,688.58	1,816.39	1,646.99	169.40	10.722	
10,450.00	5,350.00	5,350.00	5,353.71	59.38	110.60	90.118	-2,955.19	4,688.58	1,809.37	1,639.43	169.94	10.647	
10,500.00	5,350.00	5,350.00	5,353.71	59.91	110.60	90.118	-2,955.19	4,688.58	1,803.70	1,633.23	170.47	10.581	
10,550.00	5,350.00	5,350.00	5,353.71	60.44	110.60	90.118	-2,955.19	4,688.58	1,799.41	1,628.41	171.00	10.523	
10,600.00	5,350.00	5,350.00	5,353.71	60.97	110.60	90.118	-2,955.19	4,688.58	1,796.49	1,624.96	171.53	10.473	
10,650.00	5,350.00	5,350.00	5,353.71	61.51	110.60	90.118	-2,955.19	4,688.58	1,794.97	1,622.90	172.07	10.432	
10,679.71	5,350.00	5,350.00	5,353.71	61.82	110.60	90.118	-2,955.19	4,688.58	1,794.72	1,622.34	172.38	10.411 CC	
10,700.00	5,350.00	5,350.00	5,353.71	62.04	110.60	90.118	-2,955.19	4,688.58	1,794.84	1,622.24	172.60	10.399 ES	
10,750.00	5,350.00	5,350.00	5,353.71	62.58	110.60	90.118	-2,955.19	4,688.58	1,796.10	1,622.97	173.13	10.374	
10,800.00	5,350.00	5,350.00	5,353.71	63.11	110.60	90.118	-2,955.19	4,688.58	1,798.75	1,625.08	173.67	10.357	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 220-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,850.00	5,350.00	5,350.00	5,353.71	63.65	110.60	90.118	-2,955.19	4,688.58	1,802.79	1,628.58	174.20	10.349	
10,900.00	5,350.00	5,350.00	5,353.71	64.18	110.60	90.118	-2,955.19	4,688.58	1,808.19	1,633.45	174.74	10.348 SF	
10,950.00	5,350.00	5,350.00	5,353.71	64.72	110.60	90.118	-2,955.19	4,688.58	1,814.96	1,639.69	175.28	10.355	
11,000.00	5,350.00	5,350.00	5,353.71	65.25	110.60	90.118	-2,955.19	4,688.58	1,823.08	1,647.27	175.81	10.369	
11,050.00	5,350.00	5,350.00	5,353.71	65.79	110.60	90.118	-2,955.19	4,688.58	1,832.53	1,656.17	176.35	10.391	
11,100.00	5,350.00	5,350.00	5,353.71	66.33	110.60	90.118	-2,955.19	4,688.58	1,843.28	1,666.39	176.89	10.421	
11,150.00	5,350.00	5,350.00	5,353.71	66.87	110.60	90.118	-2,955.19	4,688.58	1,855.32	1,677.89	177.43	10.457	
11,165.49	5,350.00	5,350.00	5,353.71	67.03	110.60	90.118	-2,955.19	4,688.58	1,859.31	1,681.71	177.59	10.470	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,550.00	5,350.00	5,141.00	5,144.00	30.56	199.40	77.553	-2,094.72	4,369.21	2,970.89	2,745.38	225.51	13.174	
7,600.00	5,350.00	5,141.00	5,144.00	30.99	199.40	77.553	-2,094.72	4,369.21	2,923.59	2,697.67	225.93	12.940	
7,650.00	5,350.00	5,141.00	5,144.00	31.43	199.40	77.553	-2,094.72	4,369.21	2,876.39	2,650.04	226.35	12.708	
7,700.00	5,350.00	5,141.00	5,144.00	31.87	199.40	77.553	-2,094.72	4,369.21	2,829.28	2,602.50	226.78	12.476	
7,750.00	5,350.00	5,141.00	5,144.00	32.31	199.40	77.553	-2,094.72	4,369.21	2,782.27	2,555.06	227.21	12.246	
7,800.00	5,350.00	5,141.00	5,144.00	32.76	199.40	77.553	-2,094.72	4,369.21	2,735.36	2,507.73	227.64	12.016	
7,850.00	5,350.00	5,141.00	5,144.00	33.21	199.40	77.553	-2,094.72	4,369.21	2,688.57	2,460.50	228.08	11.788	
7,900.00	5,350.00	5,141.00	5,144.00	33.66	199.40	77.553	-2,094.72	4,369.21	2,641.90	2,413.38	228.51	11.561	
7,950.00	5,350.00	5,141.00	5,144.00	34.12	199.40	77.553	-2,094.72	4,369.21	2,595.35	2,366.39	228.96	11.335	
8,000.00	5,350.00	5,141.00	5,144.00	34.58	199.40	77.553	-2,094.72	4,369.21	2,548.93	2,319.53	229.40	11.111	
8,050.00	5,350.00	5,141.00	5,144.00	35.05	199.40	77.553	-2,094.72	4,369.21	2,502.65	2,272.79	229.85	10.888	
8,100.00	5,350.00	5,141.00	5,144.00	35.51	199.40	77.553	-2,094.72	4,369.21	2,456.51	2,226.21	230.30	10.666	
8,150.00	5,350.00	5,141.00	5,144.00	35.98	199.40	77.553	-2,094.72	4,369.21	2,410.53	2,179.77	230.76	10.446	
8,200.00	5,350.00	5,141.00	5,144.00	36.46	199.40	77.553	-2,094.72	4,369.21	2,364.71	2,133.49	231.22	10.227	
8,250.00	5,350.00	5,141.00	5,144.00	36.93	199.40	77.553	-2,094.72	4,369.21	2,319.06	2,087.39	231.68	10.010	
8,300.00	5,350.00	5,141.00	5,144.00	37.41	199.40	77.553	-2,094.72	4,369.21	2,273.60	2,041.46	232.14	9.794	
8,350.00	5,350.00	5,141.00	5,144.00	37.89	199.40	77.553	-2,094.72	4,369.21	2,228.33	1,995.73	232.60	9.580	
8,400.00	5,350.00	5,141.00	5,144.00	38.37	199.40	77.553	-2,094.72	4,369.21	2,183.27	1,950.20	233.07	9.367	
8,450.00	5,350.00	5,141.00	5,144.00	38.86	199.40	77.553	-2,094.72	4,369.21	2,138.43	1,904.89	233.54	9.157	
8,500.00	5,350.00	5,141.00	5,144.00	39.34	199.40	77.553	-2,094.72	4,369.21	2,093.82	1,859.81	234.01	8.948	
8,550.00	5,350.00	5,141.00	5,144.00	39.83	199.40	77.553	-2,094.72	4,369.21	2,049.46	1,814.97	234.49	8.740	
8,600.00	5,350.00	5,141.00	5,144.00	40.32	199.40	77.553	-2,094.72	4,369.21	2,005.36	1,770.40	234.96	8.535	
8,650.00	5,350.00	5,141.00	5,144.00	40.81	199.40	77.553	-2,094.72	4,369.21	1,961.55	1,726.11	235.44	8.331	
8,700.00	5,350.00	5,141.00	5,144.00	41.31	199.40	77.553	-2,094.72	4,369.21	1,918.04	1,682.13	235.92	8.130	
8,750.00	5,350.00	5,141.00	5,144.00	41.80	199.40	77.553	-2,094.72	4,369.21	1,874.86	1,638.46	236.40	7.931	
8,800.00	5,350.00	5,141.00	5,144.00	42.30	199.40	77.553	-2,094.72	4,369.21	1,832.02	1,595.14	236.88	7.734	
8,850.00	5,350.00	5,141.00	5,144.00	42.80	199.40	77.553	-2,094.72	4,369.21	1,789.55	1,552.19	237.37	7.539	
8,900.00	5,350.00	5,141.00	5,144.00	43.30	199.40	77.553	-2,094.72	4,369.21	1,747.49	1,509.63	237.85	7.347	
8,950.00	5,350.00	5,141.00	5,144.00	43.80	199.40	77.553	-2,094.72	4,369.21	1,705.85	1,467.51	238.34	7.157	
9,000.00	5,350.00	5,141.00	5,144.00	44.30	199.40	77.553	-2,094.72	4,369.21	1,664.67	1,425.84	238.83	6.970	
9,050.00	5,350.00	5,141.00	5,144.00	44.81	199.40	77.553	-2,094.72	4,369.21	1,623.98	1,384.66	239.32	6.786	
9,100.00	5,350.00	5,141.00	5,144.00	45.32	199.40	77.553	-2,094.72	4,369.21	1,583.83	1,344.02	239.81	6.604	
9,150.00	5,350.00	5,141.00	5,144.00	45.82	199.40	77.553	-2,094.72	4,369.21	1,544.26	1,303.95	240.31	6.426	
9,200.00	5,350.00	5,141.00	5,144.00	46.33	199.40	77.553	-2,094.72	4,369.21	1,505.30	1,264.50	240.80	6.251	
9,250.00	5,350.00	5,141.00	5,144.00	46.84	199.40	77.553	-2,094.72	4,369.21	1,467.02	1,225.72	241.30	6.080	
9,300.00	5,350.00	5,141.00	5,144.00	47.35	199.40	77.553	-2,094.72	4,369.21	1,429.45	1,187.66	241.79	5.912	
9,350.00	5,350.00	5,141.00	5,144.00	47.87	199.40	77.553	-2,094.72	4,369.21	1,392.67	1,150.38	242.29	5.748	
9,400.00	5,350.00	5,141.00	5,144.00	48.38	199.40	77.553	-2,094.72	4,369.21	1,356.74	1,113.95	242.79	5.588	
9,450.00	5,350.00	5,141.00	5,144.00	48.90	199.40	77.553	-2,094.72	4,369.21	1,321.72	1,078.43	243.29	5.433	
9,500.00	5,350.00	5,141.00	5,144.00	49.41	199.40	77.553	-2,094.72	4,369.21	1,287.69	1,043.90	243.79	5.282	
9,550.00	5,350.00	5,141.00	5,144.00	49.93	199.40	77.553	-2,094.72	4,369.21	1,254.73	1,010.44	244.30	5.136	
9,600.00	5,350.00	5,141.00	5,144.00	50.45	199.40	77.553	-2,094.72	4,369.21	1,222.93	978.13	244.80	4.996	
9,650.00	5,350.00	5,141.00	5,144.00	50.97	199.40	77.553	-2,094.72	4,369.21	1,192.38	947.07	245.31	4.861	
9,700.00	5,350.00	5,141.00	5,144.00	51.48	199.40	77.553	-2,094.72	4,369.21	1,163.17	917.36	245.81	4.732	
9,750.00	5,350.00	5,141.00	5,144.00	52.01	199.40	77.553	-2,094.72	4,369.21	1,135.42	889.10	246.32	4.610	
9,800.00	5,350.00	5,141.00	5,144.00	52.53	199.40	77.553	-2,094.72	4,369.21	1,109.22	862.40	246.83	4.494	
9,850.00	5,350.00	5,141.00	5,144.00	53.05	199.40	77.553	-2,094.72	4,369.21	1,084.70	837.37	247.33	4.386	
9,900.00	5,350.00	5,141.00	5,144.00	53.57	199.40	77.553	-2,094.72	4,369.21	1,061.97	814.13	247.84	4.285	
9,950.00	5,350.00	5,141.00	5,144.00	54.10	199.40	77.553	-2,094.72	4,369.21	1,041.15	792.79	248.35	4.192	
10,000.00	5,350.00	5,141.00	5,144.00	54.62	199.40	77.553	-2,094.72	4,369.21	1,022.35	773.48	248.86	4.108	
10,050.00	5,350.00	5,141.00	5,144.00	55.15	199.40	77.553	-2,094.72	4,369.21	1,005.68	756.31	249.38	4.033	
10,100.00	5,350.00	5,141.00	5,144.00	55.67	199.40	77.553	-2,094.72	4,369.21	991.26	741.37	249.89	3.967	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,150.00	5,350.00	5,141.00	5,144.00	56.20	199.40	77.553	-2,094.72	4,369.21	979.19	728.78	250.40	3.910		
10,200.00	5,350.00	5,141.00	5,144.00	56.73	199.40	77.553	-2,094.72	4,369.21	969.54	718.62	250.92	3.864		
10,250.00	5,350.00	5,141.00	5,144.00	57.26	199.40	77.553	-2,094.72	4,369.21	962.40	710.97	251.43	3.828		
10,300.00	5,350.00	5,141.00	5,144.00	57.79	199.40	77.553	-2,094.72	4,369.21	957.82	705.87	251.95	3.802		
10,350.00	5,350.00	5,141.00	5,144.00	58.32	199.40	77.553	-2,094.72	4,369.21	955.84	703.37	252.46	3.786		
10,362.96	5,350.00	5,141.00	5,144.00	58.45	199.40	77.553	-2,094.72	4,369.21	955.75	703.15	252.60	3.784 CC, ES		
10,400.00	5,350.00	5,141.00	5,144.00	58.85	199.40	77.553	-2,094.72	4,369.21	956.47	703.49	252.98	3.781 SF		
10,450.00	5,350.00	5,141.00	5,144.00	59.38	199.40	77.553	-2,094.72	4,369.21	959.70	706.21	253.50	3.786		
10,500.00	5,350.00	5,141.00	5,144.00	59.91	199.40	77.553	-2,094.72	4,369.21	965.52	711.51	254.02	3.801		
10,550.00	5,350.00	5,141.00	5,144.00	60.44	199.40	77.553	-2,094.72	4,369.21	973.88	719.34	254.53	3.826		
10,600.00	5,350.00	5,141.00	5,144.00	60.97	199.40	77.553	-2,094.72	4,369.21	984.70	729.65	255.05	3.861		
10,650.00	5,350.00	5,141.00	5,144.00	61.51	199.40	77.553	-2,094.72	4,369.21	997.92	742.35	255.57	3.905		
10,700.00	5,350.00	5,141.00	5,144.00	62.04	199.40	77.553	-2,094.72	4,369.21	1,013.44	757.34	256.09	3.957		
10,750.00	5,350.00	5,141.00	5,144.00	62.58	199.40	77.553	-2,094.72	4,369.21	1,031.14	774.53	256.62	4.018		
10,800.00	5,350.00	5,141.00	5,144.00	63.11	199.40	77.553	-2,094.72	4,369.21	1,050.93	793.80	257.14	4.087		
10,850.00	5,350.00	5,141.00	5,144.00	63.65	199.40	77.553	-2,094.72	4,369.21	1,072.69	815.03	257.66	4.163		
10,900.00	5,350.00	5,141.00	5,144.00	64.18	199.40	77.553	-2,094.72	4,369.21	1,096.30	838.12	258.18	4.246		
10,950.00	5,350.00	5,141.00	5,144.00	64.72	199.40	77.553	-2,094.72	4,369.21	1,121.64	862.93	258.70	4.336		
11,000.00	5,350.00	5,141.00	5,144.00	65.25	199.40	77.553	-2,094.72	4,369.21	1,148.60	889.37	259.23	4.431		
11,050.00	5,350.00	5,141.00	5,144.00	65.79	199.40	77.553	-2,094.72	4,369.21	1,177.06	917.31	259.75	4.532		
11,100.00	5,350.00	5,141.00	5,144.00	66.33	199.40	77.553	-2,094.72	4,369.21	1,206.93	946.66	260.28	4.637		
11,150.00	5,350.00	5,141.00	5,144.00	66.87	199.40	77.553	-2,094.72	4,369.21	1,238.10	977.30	260.80	4.747		
11,165.49	5,350.00	5,141.00	5,144.00	67.03	199.40	77.553	-2,094.72	4,369.21	1,248.00	987.04	260.96	4.782		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 532-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,200.00	1,185.27	1,167.29	1,185.27	4.16	18.21	-59.725	-2,897.31	1,027.84	2,998.55	2,976.38	22.17	135.263		
1,250.00	1,232.68	1,214.70	1,232.68	4.36	19.18	-60.123	-2,897.31	1,027.84	2,990.28	2,966.98	23.30	128.325		
1,300.00	1,279.83	1,261.85	1,279.83	4.57	20.15	-60.486	-2,897.31	1,027.84	2,981.68	2,957.24	24.44	122.010		
1,350.00	1,326.92	1,308.94	1,326.92	4.78	21.11	-60.755	-2,897.31	1,027.84	2,973.05	2,947.46	25.59	116.184		
1,400.00	1,374.01	1,356.03	1,374.01	4.99	22.07	-61.026	-2,897.31	1,027.84	2,964.50	2,937.75	26.74	110.852		
1,450.00	1,421.10	1,403.12	1,421.10	5.20	23.03	-61.299	-2,897.31	1,027.84	2,956.01	2,928.11	27.90	105.955		
1,500.00	1,468.19	1,450.21	1,468.19	5.41	24.00	-61.572	-2,897.31	1,027.84	2,947.60	2,918.54	29.06	101.444		
1,550.00	1,515.28	1,497.30	1,515.28	5.63	24.96	-61.848	-2,897.31	1,027.84	2,939.26	2,909.04	30.22	97.274		
1,600.00	1,562.37	1,544.39	1,562.37	5.84	25.92	-62.124	-2,897.31	1,027.84	2,930.99	2,899.61	31.38	93.410		
1,650.00	1,609.46	1,591.48	1,609.46	6.06	26.89	-62.402	-2,897.31	1,027.84	2,922.80	2,890.25	32.54	89.819		
1,700.00	1,656.55	1,638.57	1,656.55	6.27	27.85	-62.682	-2,897.31	1,027.84	2,914.67	2,880.97	33.71	86.475		
1,750.00	1,703.64	1,714.00	1,731.97	6.49	29.39	-63.132	-2,897.31	1,027.84	2,906.77	2,871.32	35.45	82.000		
1,800.00	1,750.73	1,732.76	1,750.73	6.71	29.82	-63.245	-2,897.31	1,027.84	2,898.66	2,862.57	36.08	80.329		
1,850.00	1,797.82	1,779.85	1,797.82	6.93	30.90	-63.529	-2,897.31	1,027.84	2,890.76	2,853.39	37.37	77.359		
1,900.00	1,844.91	1,826.94	1,844.91	7.14	31.98	-63.814	-2,897.31	1,027.84	2,882.94	2,844.29	38.65	74.586		
1,950.00	1,892.00	1,874.02	1,892.00	7.36	33.06	-64.100	-2,897.31	1,027.84	2,875.20	2,835.26	39.94	71.991		
2,000.00	1,939.08	1,921.11	1,939.08	7.58	34.14	-64.388	-2,897.31	1,027.84	2,867.53	2,826.31	41.23	69.558		
2,050.00	1,986.17	1,968.20	1,986.17	7.80	35.21	-64.678	-2,897.31	1,027.84	2,859.95	2,817.43	42.51	67.271		
2,100.00	2,033.26	2,015.29	2,033.26	8.02	36.29	-64.968	-2,897.31	1,027.84	2,852.44	2,808.64	43.80	65.120		
2,150.00	2,080.35	2,062.38	2,080.35	8.24	37.37	-65.251	-2,897.31	1,027.84	2,845.01	2,799.92	45.09	63.092		
2,200.00	2,127.44	2,109.47	2,127.44	8.46	38.45	-65.554	-2,897.31	1,027.84	2,837.66	2,791.28	46.38	61.177		
2,250.00	2,174.53	2,209.00	2,226.93	8.68	40.73	-66.179	-2,897.31	1,027.84	2,830.88	2,782.00	48.88	57.915		
2,300.00	2,221.62	2,209.00	2,226.93	8.90	40.73	-66.179	-2,897.31	1,027.84	2,823.22	2,774.12	49.09	57.507		
2,350.00	2,268.71	2,250.78	2,268.71	9.12	41.73	-66.443	-2,897.31	1,027.84	2,816.11	2,765.80	50.31	55.978		
2,400.00	2,315.80	2,297.87	2,315.80	9.34	42.86	-66.742	-2,897.31	1,027.84	2,809.09	2,757.44	51.65	54.388		
2,450.00	2,362.89	2,344.96	2,362.89	9.56	43.98	-67.042	-2,897.31	1,027.84	2,802.15	2,749.16	52.99	52.878		
2,500.00	2,409.98	2,392.05	2,409.98	9.78	45.11	-67.343	-2,897.31	1,027.84	2,795.30	2,740.96	54.34	51.445		
2,550.00	2,457.07	2,439.14	2,457.07	10.00	46.23	-67.646	-2,897.31	1,027.84	2,788.53	2,732.85	55.68	50.081		
2,600.00	2,504.16	2,486.23	2,504.16	10.22	47.36	-67.951	-2,897.31	1,027.84	2,781.84	2,724.82	57.03	48.782		
2,650.00	2,551.25	2,533.31	2,551.25	10.44	48.48	-68.256	-2,897.31	1,027.84	2,775.24	2,716.87	58.37	47.544		
2,700.00	2,598.34	2,580.40	2,598.34	10.67	49.61	-68.563	-2,897.31	1,027.84	2,768.73	2,709.01	59.72	46.362		
2,750.00	2,645.42	2,664.00	2,681.90	10.89	51.61	-69.111	-2,897.31	1,027.84	2,762.55	2,700.60	61.95	44.596		
2,800.00	2,692.51	2,674.62	2,692.51	11.11	51.86	-69.181	-2,897.31	1,027.84	2,755.97	2,693.55	62.42	44.153		
2,850.00	2,739.60	2,721.71	2,739.60	11.33	52.99	-69.492	-2,897.31	1,027.84	2,749.72	2,685.95	63.77	43.118		
2,900.00	2,786.69	2,768.80	2,786.69	11.55	54.12	-69.804	-2,897.31	1,027.84	2,743.56	2,678.43	65.13	42.126		
2,950.00	2,833.78	2,815.89	2,833.78	11.77	55.25	-70.117	-2,897.31	1,027.84	2,737.49	2,671.00	66.48	41.176		
3,000.00	2,880.87	2,862.98	2,880.87	12.00	56.38	-70.431	-2,897.31	1,027.84	2,731.51	2,663.67	67.84	40.265		
3,050.00	2,927.96	2,910.07	2,927.96	12.22	57.51	-70.747	-2,897.31	1,027.84	2,725.62	2,656.42	69.20	39.390		
3,100.00	2,975.05	2,957.15	2,975.05	12.44	58.64	-71.064	-2,897.31	1,027.84	2,719.82	2,649.26	70.55	38.550		
3,150.00	3,022.14	3,004.24	3,022.14	12.66	59.77	-71.382	-2,897.31	1,027.84	2,714.11	2,642.20	71.91	37.743		
3,200.00	3,069.23	3,051.33	3,069.23	12.89	60.90	-71.702	-2,897.31	1,027.84	2,708.49	2,635.22	73.27	36.966		
3,250.00	3,116.32	3,109.00	3,126.84	13.11	62.29	-72.094	-2,897.31	1,027.84	2,702.99	2,628.10	74.89	36.095		
3,300.00	3,163.41	3,145.56	3,163.41	13.33	63.17	-72.344	-2,897.31	1,027.84	2,697.54	2,621.55	75.99	35.498		
3,350.00	3,210.50	3,192.65	3,210.50	13.55	64.30	-72.667	-2,897.31	1,027.84	2,692.20	2,614.85	77.36	34.803		
3,400.00	3,257.59	3,239.74	3,257.59	13.78	65.43	-72.991	-2,897.31	1,027.84	2,686.96	2,608.25	78.72	34.134		
3,450.00	3,304.68	3,286.83	3,304.68	14.00	66.57	-73.316	-2,897.31	1,027.84	2,681.82	2,601.74	80.08	33.488		
3,500.00	3,351.76	3,333.92	3,351.76	14.22	67.70	-73.642	-2,897.31	1,027.84	2,676.77	2,595.32	81.45	32.865		
3,550.00	3,398.85	3,381.01	3,398.85	14.44	68.83	-73.970	-2,897.31	1,027.84	2,671.81	2,589.00	82.81	32.263		
3,600.00	3,445.94	3,428.10	3,445.94	14.67	69.97	-74.298	-2,897.31	1,027.84	2,666.96	2,582.78	84.18	31.682		
3,650.00	3,493.03	3,475.19	3,493.03	14.89	71.10	-74.628	-2,897.31	1,027.84	2,662.20	2,576.65	85.54	31.121		
3,700.00	3,540.12	3,522.28	3,540.12	15.11	72.23	-74.958	-2,897.31	1,027.84	2,657.54	2,570.63	86.91	30.578		
3,750.00	3,587.21	3,604.00	3,621.81	15.34	74.20	-75.534	-2,897.31	1,027.84	2,653.20	2,564.08	89.12	29.771		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 532-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
3,800.00	3,634.30	3,616.50	3,634.30	15.56	74.52	-75.622	-2,897.31	1,027.84	2,648.51	2,558.84	89.67	29.537	
3,850.00	3,681.39	3,663.58	3,681.39	15.78	75.75	-75.956	-2,897.31	1,027.84	2,644.14	2,553.01	91.13	29.016	
3,900.00	3,728.48	3,710.67	3,728.48	16.01	76.98	-76.290	-2,897.31	1,027.84	2,639.88	2,547.29	92.59	28.512	
3,950.00	3,775.57	3,757.76	3,775.57	16.23	78.20	-76.626	-2,897.31	1,027.84	2,635.71	2,541.66	94.05	28.025	
4,000.00	3,822.66	3,804.85	3,822.66	16.45	79.43	-76.962	-2,897.31	1,027.84	2,631.65	2,536.14	95.51	27.554	
4,050.00	3,869.75	3,851.94	3,869.75	16.67	80.65	-77.300	-2,897.31	1,027.84	2,627.69	2,530.71	96.97	27.098	
4,100.00	3,916.84	3,899.03	3,916.84	16.90	81.88	-77.638	-2,897.31	1,027.84	2,623.82	2,525.39	98.43	26.656	
4,150.00	3,963.93	3,946.12	3,963.93	17.12	83.11	-77.977	-2,897.31	1,027.84	2,620.06	2,520.17	99.89	26.229	
4,200.00	4,011.02	3,993.21	4,011.02	17.34	84.33	-78.317	-2,897.31	1,027.84	2,616.41	2,515.05	101.36	25.814	
4,250.00	4,058.10	4,040.30	4,058.10	17.57	85.56	-78.658	-2,897.31	1,027.84	2,612.85	2,510.04	102.82	25.413	
4,300.00	4,105.19	4,104.00	4,121.75	17.79	87.22	-79.120	-2,897.31	1,027.84	2,609.46	2,504.74	104.72	24.919	
4,350.00	4,152.28	4,134.54	4,152.28	18.01	88.04	-79.342	-2,897.31	1,027.84	2,606.06	2,500.28	105.78	24.638	
4,400.00	4,199.37	4,181.62	4,199.37	18.24	89.32	-79.685	-2,897.31	1,027.84	2,602.82	2,495.53	107.29	24.260	
4,450.00	4,246.46	4,228.71	4,246.46	18.46	90.60	-80.029	-2,897.31	1,027.84	2,599.68	2,490.88	108.80	23.894	
4,500.00	4,293.55	4,275.80	4,293.55	18.68	91.88	-80.374	-2,897.31	1,027.84	2,596.65	2,486.33	110.32	23.538	
4,550.00	4,340.64	4,322.89	4,340.64	18.91	93.15	-80.719	-2,897.31	1,027.84	2,593.72	2,481.89	111.83	23.194	
4,600.00	4,387.73	4,369.98	4,387.73	19.13	94.43	-81.065	-2,897.31	1,027.84	2,590.90	2,477.56	113.34	22.859	
4,650.00	4,434.91	4,417.16	4,434.91	19.35	95.71	-77.152	-2,897.31	1,027.84	2,587.94	2,473.21	114.73	22.556	
4,700.00	4,482.67	4,464.92	4,482.67	19.57	97.01	-66.457	-2,897.31	1,027.84	2,583.23	2,467.40	115.83	22.301	
4,750.00	4,530.89	4,513.14	4,530.89	19.77	98.31	-52.744	-2,897.31	1,027.84	2,576.46	2,459.76	116.70	22.077	
4,800.00	4,579.34	4,595.00	4,612.67	19.95	100.54	-36.941	-2,897.31	1,027.84	2,567.84	2,449.62	118.22	21.722	
4,850.00	4,627.79	4,610.12	4,627.79	20.12	100.93	-20.775	-2,897.31	1,027.84	2,556.73	2,439.06	117.68	21.727	
4,900.00	4,676.00	4,658.33	4,676.00	20.28	102.19	-6.593	-2,897.31	1,027.84	2,543.83	2,426.06	117.77	21.600	
4,950.00	4,723.73	4,706.05	4,723.73	20.42	103.44	4.969	-2,897.31	1,027.84	2,528.97	2,411.30	117.67	21.492	
5,000.00	4,770.75	4,753.07	4,770.75	20.54	104.68	14.194	-2,897.31	1,027.84	2,512.21	2,394.78	117.43	21.392	
5,050.00	4,816.83	4,799.15	4,816.83	20.66	105.88	21.680	-2,897.31	1,027.84	2,493.66	2,376.51	117.15	21.287	
5,100.00	4,861.74	4,844.07	4,861.74	20.76	107.06	27.970	-2,897.31	1,027.84	2,473.42	2,356.51	116.91	21.157	
5,150.00	4,905.28	4,887.61	4,905.28	20.86	108.20	33.470	-2,897.31	1,027.84	2,451.62	2,334.79	116.82	20.986	
5,200.00	4,947.22	4,929.55	4,947.22	20.94	109.30	38.462	-2,897.31	1,027.84	2,428.39	2,311.38	117.01	20.753	
5,250.00	4,987.37	4,980.00	4,997.61	21.01	110.62	43.254	-2,897.31	1,027.84	2,403.94	2,286.06	117.88	20.393	
5,300.00	5,025.51	5,007.90	5,025.51	21.07	111.32	47.607	-2,897.31	1,027.84	2,378.37	2,259.78	118.59	20.056	
5,350.00	5,061.48	5,043.87	5,061.48	21.13	112.23	51.956	-2,897.31	1,027.84	2,351.94	2,231.88	120.06	19.590	
5,400.00	5,095.10	5,077.49	5,095.10	21.18	113.08	56.215	-2,897.31	1,027.84	2,324.83	2,202.87	121.97	19.061	
5,450.00	5,126.19	5,108.58	5,126.19	21.21	113.86	60.391	-2,897.31	1,027.84	2,297.27	2,173.05	124.22	18.494	
5,500.00	5,154.62	5,137.01	5,154.62	21.25	114.58	64.469	-2,897.31	1,027.84	2,269.47	2,142.80	126.67	17.917	
5,550.00	5,180.35	5,162.74	5,180.35	21.27	115.23	67.484	-2,897.31	1,027.84	2,241.68	2,112.94	128.74	17.412	
5,600.00	5,205.35	5,187.74	5,205.35	21.30	115.86	68.100	-2,897.31	1,027.84	2,214.29	2,084.49	129.81	17.058	
5,650.00	5,230.35	5,212.74	5,230.35	21.33	116.49	68.722	-2,897.31	1,027.84	2,187.42	2,056.54	130.88	16.713	
5,700.00	5,255.35	5,237.74	5,255.35	21.36	117.12	69.348	-2,897.31	1,027.84	2,161.08	2,029.13	131.96	16.377	
5,750.00	5,280.20	5,262.59	5,280.20	21.40	117.75	70.784	-2,897.31	1,027.84	2,135.25	2,001.95	133.29	16.019	
5,800.00	5,302.17	5,284.56	5,302.17	21.44	118.30	74.302	-2,897.31	1,027.84	2,109.12	1,973.83	135.30	15.589	
5,850.00	5,320.15	5,302.54	5,320.15	21.48	118.75	77.853	-2,897.31	1,027.84	2,082.66	1,945.51	137.15	15.185	
5,900.00	5,333.99	5,316.38	5,333.99	21.52	119.10	81.353	-2,897.31	1,027.84	2,056.15	1,917.49	138.66	14.829	
5,950.00	5,343.59	5,325.98	5,343.59	21.56	119.34	84.723	-2,897.31	1,027.84	2,029.90	1,890.20	139.70	14.531	
6,000.00	5,348.88	5,331.27	5,348.88	21.60	119.48	87.890	-2,897.31	1,027.84	2,004.18	1,863.96	140.22	14.293	
6,050.00	5,350.00	5,332.39	5,350.00	21.64	119.51	90.000	-2,897.31	1,027.84	1,979.23	1,838.89	140.34	14.103	
6,100.00	5,350.00	5,332.39	5,350.00	21.69	119.51	90.000	-2,897.31	1,027.84	1,955.23	1,814.72	140.51	13.915	
6,150.00	5,350.00	5,332.39	5,350.00	21.77	119.51	90.000	-2,897.31	1,027.84	1,932.23	1,791.52	140.71	13.732	
6,200.00	5,350.00	5,332.39	5,350.00	21.87	119.51	90.000	-2,897.31	1,027.84	1,910.26	1,769.35	140.91	13.557	
6,250.00	5,350.00	5,332.39	5,350.00	21.99	119.51	90.000	-2,897.31	1,027.84	1,889.36	1,748.23	141.13	13.387	
6,300.00	5,350.00	5,332.39	5,350.00	22.14	119.51	90.000	-2,897.31	1,027.84	1,869.56	1,728.21	141.36	13.226	
6,350.00	5,350.00	5,332.39	5,350.00	22.32	119.51	90.000	-2,897.31	1,027.84	1,850.91	1,709.30	141.60	13.071	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 532-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,400.00	5,350.00	5,332.39	5,350.00	22.51	119.51	90.000	-2,897.31	1,027.84	1,833.42	1,691.57	141.85	12.925	
6,450.00	5,350.00	5,332.39	5,350.00	22.74	119.51	90.000	-2,897.31	1,027.84	1,817.15	1,675.03	142.12	12.786	
6,500.00	5,350.00	5,332.39	5,350.00	22.98	119.51	90.000	-2,897.31	1,027.84	1,802.11	1,659.72	142.39	12.656	
6,550.00	5,350.00	5,332.39	5,350.00	23.24	119.51	90.000	-2,897.31	1,027.84	1,788.35	1,645.67	142.68	12.534	
6,600.00	5,350.00	5,332.39	5,350.00	23.52	119.51	90.000	-2,897.31	1,027.84	1,775.89	1,632.92	142.97	12.421	
6,650.00	5,350.00	5,332.39	5,350.00	23.81	119.51	90.000	-2,897.31	1,027.84	1,764.75	1,621.47	143.28	12.317	
6,700.00	5,350.00	5,332.39	5,350.00	24.11	119.51	90.000	-2,897.31	1,027.84	1,754.97	1,611.38	143.59	12.222	
6,750.00	5,350.00	5,332.39	5,350.00	24.43	119.51	90.000	-2,897.31	1,027.84	1,746.57	1,602.66	143.92	12.136	
6,800.00	5,350.00	5,332.39	5,350.00	24.75	119.51	90.000	-2,897.31	1,027.84	1,739.57	1,595.32	144.25	12.060	
6,850.00	5,350.00	5,332.39	5,350.00	25.09	119.51	90.000	-2,897.31	1,027.84	1,733.98	1,589.39	144.59	11.992	
6,900.00	5,350.00	5,332.39	5,350.00	25.43	119.51	90.000	-2,897.31	1,027.84	1,729.82	1,584.88	144.93	11.935	
6,950.00	5,350.00	5,332.39	5,350.00	25.79	119.51	90.000	-2,897.31	1,027.84	1,727.09	1,581.80	145.29	11.887	
7,000.00	5,350.00	5,332.39	5,350.00	26.15	119.51	90.000	-2,897.31	1,027.84	1,725.82	1,580.16	145.65	11.849	
7,019.16	5,350.00	5,332.39	5,350.00	26.29	119.51	90.000	-2,897.31	1,027.84	1,725.71	1,579.91	145.80	11.836 CC, ES	
7,050.00	5,350.00	5,332.39	5,350.00	26.52	119.51	90.000	-2,897.31	1,027.84	1,725.98	1,579.96	146.03	11.820	
7,100.00	5,350.00	5,332.39	5,350.00	26.89	119.51	90.000	-2,897.31	1,027.84	1,727.60	1,581.20	146.40	11.800	
7,150.00	5,350.00	5,332.39	5,350.00	27.28	119.51	90.000	-2,897.31	1,027.84	1,730.66	1,583.87	146.79	11.790	
7,200.00	5,350.00	5,332.39	5,350.00	27.67	119.51	90.000	-2,897.31	1,027.84	1,735.16	1,587.98	147.17	11.790 SF	
7,250.00	5,350.00	5,332.39	5,350.00	28.07	119.51	90.000	-2,897.31	1,027.84	1,741.08	1,593.51	147.57	11.798	
7,300.00	5,350.00	5,332.39	5,350.00	28.47	119.51	90.000	-2,897.31	1,027.84	1,748.41	1,600.44	147.97	11.816	
7,350.00	5,350.00	5,332.39	5,350.00	28.88	119.51	90.000	-2,897.31	1,027.84	1,757.13	1,608.75	148.38	11.842	
7,400.00	5,350.00	5,332.39	5,350.00	29.29	119.51	90.000	-2,897.31	1,027.84	1,767.23	1,618.44	148.79	11.877	
7,450.00	5,350.00	5,332.39	5,350.00	29.71	119.51	90.000	-2,897.31	1,027.84	1,778.68	1,629.47	149.21	11.921	
7,500.00	5,350.00	5,332.39	5,350.00	30.13	119.51	90.000	-2,897.31	1,027.84	1,791.44	1,641.82	149.63	11.973	
7,550.00	5,350.00	5,332.39	5,350.00	30.56	119.51	90.000	-2,897.31	1,027.84	1,805.51	1,655.45	150.06	12.032	
7,600.00	5,350.00	5,332.39	5,350.00	30.99	119.51	90.000	-2,897.31	1,027.84	1,820.83	1,670.35	150.49	12.100	
7,650.00	5,350.00	5,332.39	5,350.00	31.43	119.51	90.000	-2,897.31	1,027.84	1,837.40	1,686.47	150.92	12.174	
7,700.00	5,350.00	5,332.39	5,350.00	31.87	119.51	90.000	-2,897.31	1,027.84	1,855.16	1,703.80	151.36	12.257	
7,750.00	5,350.00	5,332.39	5,350.00	32.31	119.51	90.000	-2,897.31	1,027.84	1,874.08	1,722.28	151.80	12.345	
7,800.00	5,350.00	5,332.39	5,350.00	32.76	119.51	90.000	-2,897.31	1,027.84	1,894.14	1,741.89	152.25	12.441	
7,850.00	5,350.00	5,332.39	5,350.00	33.21	119.51	90.000	-2,897.31	1,027.84	1,915.30	1,762.59	152.70	12.543	
7,900.00	5,350.00	5,332.39	5,350.00	33.66	119.51	90.000	-2,897.31	1,027.84	1,937.51	1,784.36	153.15	12.651	
7,950.00	5,350.00	5,332.39	5,350.00	34.12	119.51	90.000	-2,897.31	1,027.84	1,960.75	1,807.13	153.61	12.764	
8,000.00	5,350.00	5,332.39	5,350.00	34.58	119.51	90.000	-2,897.31	1,027.84	1,984.97	1,830.90	154.07	12.884	
8,050.00	5,350.00	5,332.39	5,350.00	35.05	119.51	90.000	-2,897.31	1,027.84	2,010.15	1,855.61	154.53	13.008	
8,100.00	5,350.00	5,332.39	5,350.00	35.51	119.51	90.000	-2,897.31	1,027.84	2,036.24	1,881.24	155.00	13.137	
8,150.00	5,350.00	5,332.39	5,350.00	35.98	119.51	90.000	-2,897.31	1,027.84	2,063.22	1,907.75	155.47	13.271	
8,200.00	5,350.00	5,332.39	5,350.00	36.46	119.51	90.000	-2,897.31	1,027.84	2,091.04	1,935.10	155.94	13.409	
8,250.00	5,350.00	5,332.39	5,350.00	36.93	119.51	90.000	-2,897.31	1,027.84	2,119.68	1,963.26	156.41	13.552	
8,300.00	5,350.00	5,332.39	5,350.00	37.41	119.51	90.000	-2,897.31	1,027.84	2,149.10	1,992.21	156.89	13.698	
8,350.00	5,350.00	5,332.39	5,350.00	37.89	119.51	90.000	-2,897.31	1,027.84	2,179.26	2,021.90	157.37	13.848	
8,400.00	5,350.00	5,332.39	5,350.00	38.37	119.51	90.000	-2,897.31	1,027.84	2,210.15	2,052.30	157.85	14.002	
8,450.00	5,350.00	5,332.39	5,350.00	38.86	119.51	90.000	-2,897.31	1,027.84	2,241.73	2,083.40	158.33	14.158	
8,500.00	5,350.00	5,332.39	5,350.00	39.34	119.51	90.000	-2,897.31	1,027.84	2,273.97	2,115.15	158.82	14.318	
8,550.00	5,350.00	5,332.39	5,350.00	39.83	119.51	90.000	-2,897.31	1,027.84	2,306.84	2,147.54	159.31	14.481	
8,600.00	5,350.00	5,332.39	5,350.00	40.32	119.51	90.000	-2,897.31	1,027.84	2,340.32	2,180.53	159.80	14.646	
8,650.00	5,350.00	5,332.39	5,350.00	40.81	119.51	90.000	-2,897.31	1,027.84	2,374.38	2,214.09	160.29	14.813	
8,700.00	5,350.00	5,332.39	5,350.00	41.31	119.51	90.000	-2,897.31	1,027.84	2,409.00	2,248.22	160.78	14.983	
8,750.00	5,350.00	5,332.39	5,350.00	41.80	119.51	90.000	-2,897.31	1,027.84	2,444.15	2,282.87	161.28	15.155	
8,800.00	5,350.00	5,332.39	5,350.00	42.30	119.51	90.000	-2,897.31	1,027.84	2,479.81	2,318.03	161.77	15.329	
8,850.00	5,350.00	5,332.39	5,350.00	42.80	119.51	90.000	-2,897.31	1,027.84	2,515.95	2,353.68	162.27	15.505	
8,900.00	5,350.00	5,332.39	5,350.00	43.30	119.51	90.000	-2,897.31	1,027.84	2,552.57	2,389.80	162.77	15.682	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - MCINTYRE B #9 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 532-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,950.00	5,350.00	5,332.39	5,350.00	43.80	119.51	90.000	-2,897.31	1,027.84	2,589.63	2,426.36	163.27	15.861	
9,000.00	5,350.00	5,332.39	5,350.00	44.30	119.51	90.000	-2,897.31	1,027.84	2,627.12	2,463.35	163.78	16.041	
9,050.00	5,350.00	5,332.39	5,350.00	44.81	119.51	90.000	-2,897.31	1,027.84	2,665.03	2,500.74	164.28	16.222	
9,100.00	5,350.00	5,332.39	5,350.00	45.32	119.51	90.000	-2,897.31	1,027.84	2,703.32	2,538.53	164.79	16.405	
9,150.00	5,350.00	5,332.39	5,350.00	45.82	119.51	90.000	-2,897.31	1,027.84	2,741.99	2,576.70	165.29	16.588	
9,200.00	5,350.00	5,332.39	5,350.00	46.33	119.51	90.000	-2,897.31	1,027.84	2,781.03	2,615.22	165.80	16.773	
9,250.00	5,350.00	5,332.39	5,350.00	46.84	119.51	90.000	-2,897.31	1,027.84	2,820.41	2,654.09	166.31	16.958	
9,300.00	5,350.00	5,332.39	5,350.00	47.35	119.51	90.000	-2,897.31	1,027.84	2,860.12	2,693.29	166.82	17.145	
9,350.00	5,350.00	5,332.39	5,350.00	47.87	119.51	90.000	-2,897.31	1,027.84	2,900.15	2,732.81	167.34	17.331	
9,400.00	5,350.00	5,332.39	5,350.00	48.38	119.51	90.000	-2,897.31	1,027.84	2,940.48	2,772.63	167.85	17.519	
9,450.00	5,350.00	5,332.39	5,350.00	48.90	119.51	90.000	-2,897.31	1,027.84	2,981.11	2,812.75	168.37	17.706	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 407-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,750.00	5,280.20	5,020.00	5,030.35	21.40	127.44	51.541	-2,894.36	2,178.11	2,973.14	2,846.99	126.15	23.568	
5,800.00	5,302.17	5,020.00	5,030.35	21.44	127.44	55.325	-2,894.36	2,178.11	2,938.85	2,810.39	128.46	22.877	
5,850.00	5,320.15	5,020.00	5,030.35	21.48	127.44	59.605	-2,894.36	2,178.11	2,903.23	2,771.28	131.95	22.003	
5,900.00	5,333.99	5,020.00	5,030.35	21.52	127.44	64.386	-2,894.36	2,178.11	2,866.49	2,730.30	136.18	21.049	
5,950.00	5,343.59	5,020.00	5,030.35	21.56	127.44	69.638	-2,894.36	2,178.11	2,828.88	2,688.30	140.58	20.122	
6,000.00	5,348.88	5,020.00	5,030.35	21.60	127.44	75.288	-2,894.36	2,178.11	2,790.66	2,646.19	144.47	19.317	
6,050.00	5,350.00	5,020.00	5,030.35	21.64	127.44	79.510	-2,894.36	2,178.11	2,752.12	2,605.48	146.63	18.769	
6,100.00	5,350.00	5,020.00	5,030.35	21.69	127.44	79.510	-2,894.36	2,178.11	2,713.80	2,566.99	146.81	18.485	
6,150.00	5,350.00	5,020.00	5,030.35	21.77	127.44	79.510	-2,894.36	2,178.11	2,675.87	2,528.86	147.01	18.202	
6,200.00	5,350.00	5,020.00	5,030.35	21.87	127.44	79.510	-2,894.36	2,178.11	2,638.34	2,491.13	147.20	17.923	
6,250.00	5,350.00	5,020.00	5,030.35	21.99	127.44	79.510	-2,894.36	2,178.11	2,601.23	2,453.80	147.43	17.644	
6,300.00	5,350.00	5,020.00	5,030.35	22.14	127.44	79.510	-2,894.36	2,178.11	2,564.55	2,416.91	147.65	17.370	
6,350.00	5,350.00	5,020.00	5,030.35	22.32	127.44	79.510	-2,894.36	2,178.11	2,528.34	2,380.45	147.89	17.096	
6,400.00	5,350.00	5,020.00	5,030.35	22.51	127.44	79.510	-2,894.36	2,178.11	2,492.60	2,344.46	148.13	16.827	
6,450.00	5,350.00	5,020.00	5,030.35	22.74	127.44	79.510	-2,894.36	2,178.11	2,457.36	2,308.96	148.40	16.559	
6,500.00	5,350.00	5,020.00	5,030.35	22.98	127.44	79.510	-2,894.36	2,178.11	2,422.64	2,273.97	148.66	16.296	
6,550.00	5,350.00	5,020.00	5,030.35	23.24	127.44	79.510	-2,894.36	2,178.11	2,388.45	2,239.50	148.95	16.035	
6,600.00	5,350.00	5,020.00	5,030.35	23.52	127.44	79.510	-2,894.36	2,178.11	2,354.84	2,205.61	149.24	15.779	
6,650.00	5,350.00	5,020.00	5,030.35	23.81	127.44	79.510	-2,894.36	2,178.11	2,321.82	2,172.28	149.54	15.527	
6,700.00	5,350.00	5,020.00	5,030.35	24.11	127.44	79.510	-2,894.36	2,178.11	2,289.41	2,139.56	149.84	15.279	
6,750.00	5,350.00	5,020.00	5,030.35	24.43	127.44	79.510	-2,894.36	2,178.11	2,257.64	2,107.48	150.16	15.035	
6,800.00	5,350.00	5,020.00	5,030.35	24.75	127.44	79.510	-2,894.36	2,178.11	2,226.54	2,076.06	150.48	14.796	
6,850.00	5,350.00	5,020.00	5,030.35	25.09	127.44	79.510	-2,894.36	2,178.11	2,196.15	2,045.32	150.82	14.561	
6,900.00	5,350.00	5,020.00	5,030.35	25.43	127.44	79.510	-2,894.36	2,178.11	2,166.47	2,015.32	151.16	14.333	
6,950.00	5,350.00	5,020.00	5,030.35	25.79	127.44	79.510	-2,894.36	2,178.11	2,137.56	1,986.05	151.51	14.108	
7,000.00	5,350.00	5,020.00	5,030.35	26.15	127.44	79.510	-2,894.36	2,178.11	2,109.44	1,957.58	151.86	13.891	
7,050.00	5,350.00	5,020.00	5,030.35	26.52	127.44	79.510	-2,894.36	2,178.11	2,082.13	1,929.91	152.23	13.678	
7,100.00	5,350.00	5,020.00	5,030.35	26.89	127.44	79.510	-2,894.36	2,178.11	2,055.68	1,903.09	152.59	13.472	
7,150.00	5,350.00	5,020.00	5,030.35	27.28	127.44	79.510	-2,894.36	2,178.11	2,030.12	1,877.15	152.97	13.272	
7,200.00	5,350.00	5,020.00	5,030.35	27.67	127.44	79.510	-2,894.36	2,178.11	2,005.48	1,852.13	153.34	13.078	
7,250.00	5,350.00	5,020.00	5,030.35	28.07	127.44	79.510	-2,894.36	2,178.11	1,981.79	1,828.06	153.73	12.891	
7,300.00	5,350.00	5,020.00	5,030.35	28.47	127.44	79.510	-2,894.36	2,178.11	1,959.10	1,804.97	154.12	12.711	
7,350.00	5,350.00	5,020.00	5,030.35	28.88	127.44	79.510	-2,894.36	2,178.11	1,937.42	1,782.90	154.52	12.538	
7,400.00	5,350.00	5,020.00	5,030.35	29.29	127.44	79.510	-2,894.36	2,178.11	1,916.81	1,761.89	154.92	12.373	
7,450.00	5,350.00	5,020.00	5,030.35	29.71	127.44	79.510	-2,894.36	2,178.11	1,897.29	1,741.96	155.33	12.215	
7,500.00	5,350.00	5,020.00	5,030.35	30.13	127.44	79.510	-2,894.36	2,178.11	1,878.90	1,723.16	155.74	12.064	
7,550.00	5,350.00	5,020.00	5,030.35	30.56	127.44	79.510	-2,894.36	2,178.11	1,861.68	1,705.52	156.16	11.922	
7,600.00	5,350.00	5,020.00	5,030.35	30.99	127.44	79.510	-2,894.36	2,178.11	1,845.64	1,689.07	156.58	11.787	
7,650.00	5,350.00	5,020.00	5,030.35	31.43	127.44	79.510	-2,894.36	2,178.11	1,830.83	1,673.83	157.00	11.661	
7,700.00	5,350.00	5,020.00	5,030.35	31.87	127.44	79.510	-2,894.36	2,178.11	1,817.28	1,659.85	157.43	11.543	
7,750.00	5,350.00	5,020.00	5,030.35	32.31	127.44	79.510	-2,894.36	2,178.11	1,805.01	1,647.15	157.86	11.434	
7,800.00	5,350.00	5,020.00	5,030.35	32.76	127.44	79.510	-2,894.36	2,178.11	1,794.05	1,635.75	158.30	11.333	
7,850.00	5,350.00	5,020.00	5,030.35	33.21	127.44	79.510	-2,894.36	2,178.11	1,784.43	1,625.69	158.74	11.241	
7,900.00	5,350.00	5,020.00	5,030.35	33.66	127.44	79.510	-2,894.36	2,178.11	1,776.16	1,616.98	159.18	11.158	
7,950.00	5,350.00	5,020.00	5,030.35	34.12	127.44	79.510	-2,894.36	2,178.11	1,769.26	1,609.63	159.63	11.084	
8,000.00	5,350.00	5,020.00	5,030.35	34.58	127.44	79.510	-2,894.36	2,178.11	1,763.76	1,603.68	160.08	11.018	
8,050.00	5,350.00	5,020.00	5,030.35	35.05	127.44	79.510	-2,894.36	2,178.11	1,759.66	1,599.13	160.53	10.962	
8,100.00	5,350.00	5,020.00	5,030.35	35.51	127.44	79.510	-2,894.36	2,178.11	1,756.97	1,595.99	160.98	10.914	
8,150.00	5,350.00	5,020.00	5,030.35	35.98	127.44	79.510	-2,894.36	2,178.11	1,755.71	1,594.27	161.44	10.875	
8,169.44	5,350.00	5,020.00	5,030.35	36.17	127.44	79.510	-2,894.36	2,178.11	1,755.60	1,593.98	161.62	10.862 CC	
8,200.00	5,350.00	5,020.00	5,030.35	36.46	127.44	79.510	-2,894.36	2,178.11	1,755.87	1,593.96	161.90	10.845 ES	
8,250.00	5,350.00	5,020.00	5,030.35	36.93	127.44	79.510	-2,894.36	2,178.11	1,757.45	1,595.08	162.37	10.824	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 407-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,300.00	5,350.00	5,020.00	5,030.35	37.41	127.44	79.510	-2,894.36	2,178.11	1,760.45	1,597.62	162.83	10.811	
8,350.00	5,350.00	5,020.00	5,030.35	37.89	127.44	79.510	-2,894.36	2,178.11	1,764.86	1,601.56	163.30	10.807 SF	
8,400.00	5,350.00	5,020.00	5,030.35	38.37	127.44	79.510	-2,894.36	2,178.11	1,770.68	1,606.91	163.77	10.812	
8,450.00	5,350.00	5,020.00	5,030.35	38.86	127.44	79.510	-2,894.36	2,178.11	1,777.88	1,613.63	164.24	10.825	
8,500.00	5,350.00	5,020.00	5,030.35	39.34	127.44	79.510	-2,894.36	2,178.11	1,786.45	1,621.73	164.72	10.846	
8,550.00	5,350.00	5,020.00	5,030.35	39.83	127.44	79.510	-2,894.36	2,178.11	1,796.38	1,631.18	165.20	10.874	
8,600.00	5,350.00	5,020.00	5,030.35	40.32	127.44	79.510	-2,894.36	2,178.11	1,807.63	1,641.95	165.67	10.911	
8,650.00	5,350.00	5,020.00	5,030.35	40.81	127.44	79.510	-2,894.36	2,178.11	1,820.19	1,654.03	166.16	10.955	
8,700.00	5,350.00	5,020.00	5,030.35	41.31	127.44	79.510	-2,894.36	2,178.11	1,834.02	1,667.38	166.64	11.006	
8,750.00	5,350.00	5,020.00	5,030.35	41.80	127.44	79.510	-2,894.36	2,178.11	1,849.10	1,681.98	167.12	11.064	
8,800.00	5,350.00	5,020.00	5,030.35	42.30	127.44	79.510	-2,894.36	2,178.11	1,865.41	1,697.80	167.61	11.130	
8,850.00	5,350.00	5,020.00	5,030.35	42.80	127.44	79.510	-2,894.36	2,178.11	1,882.90	1,714.80	168.10	11.201	
8,900.00	5,350.00	5,020.00	5,030.35	43.30	127.44	79.510	-2,894.36	2,178.11	1,901.54	1,732.96	168.59	11.279	
8,950.00	5,350.00	5,020.00	5,030.35	43.80	127.44	79.510	-2,894.36	2,178.11	1,921.30	1,752.23	169.08	11.363	
9,000.00	5,350.00	5,020.00	5,030.35	44.30	127.44	79.510	-2,894.36	2,178.11	1,942.16	1,772.59	169.57	11.453	
9,050.00	5,350.00	5,020.00	5,030.35	44.81	127.44	79.510	-2,894.36	2,178.11	1,964.06	1,793.99	170.06	11.549	
9,100.00	5,350.00	5,020.00	5,030.35	45.32	127.44	79.510	-2,894.36	2,178.11	1,986.98	1,816.42	170.56	11.650	
9,150.00	5,350.00	5,020.00	5,030.35	45.82	127.44	79.510	-2,894.36	2,178.11	2,010.88	1,839.82	171.06	11.756	
9,200.00	5,350.00	5,020.00	5,030.35	46.33	127.44	79.510	-2,894.36	2,178.11	2,035.73	1,864.18	171.55	11.866	
9,250.00	5,350.00	5,020.00	5,030.35	46.84	127.44	79.510	-2,894.36	2,178.11	2,061.49	1,889.44	172.05	11.982	
9,300.00	5,350.00	5,020.00	5,030.35	47.35	127.44	79.510	-2,894.36	2,178.11	2,088.13	1,915.58	172.55	12.101	
9,350.00	5,350.00	5,020.00	5,030.35	47.87	127.44	79.510	-2,894.36	2,178.11	2,115.62	1,942.57	173.06	12.225	
9,400.00	5,350.00	5,020.00	5,030.35	48.38	127.44	79.510	-2,894.36	2,178.11	2,143.93	1,970.37	173.56	12.353	
9,450.00	5,350.00	5,020.00	5,030.35	48.90	127.44	79.510	-2,894.36	2,178.11	2,173.01	1,998.95	174.06	12.484	
9,500.00	5,350.00	5,020.00	5,030.35	49.41	127.44	79.510	-2,894.36	2,178.11	2,202.85	2,028.28	174.57	12.619	
9,550.00	5,350.00	5,020.00	5,030.35	49.93	127.44	79.510	-2,894.36	2,178.11	2,233.40	2,058.33	175.08	12.757	
9,600.00	5,350.00	5,020.00	5,030.35	50.45	127.44	79.510	-2,894.36	2,178.11	2,264.65	2,089.07	175.58	12.898	
9,650.00	5,350.00	5,020.00	5,030.35	50.97	127.44	79.510	-2,894.36	2,178.11	2,296.56	2,120.47	176.09	13.042	
9,700.00	5,350.00	5,020.00	5,030.35	51.48	127.44	79.510	-2,894.36	2,178.11	2,329.11	2,152.51	176.60	13.189	
9,750.00	5,350.00	5,020.00	5,030.35	52.01	127.44	79.510	-2,894.36	2,178.11	2,362.27	2,185.16	177.11	13.338	
9,800.00	5,350.00	5,020.00	5,030.35	52.53	127.44	79.510	-2,894.36	2,178.11	2,396.01	2,218.39	177.62	13.489	
9,850.00	5,350.00	5,020.00	5,030.35	53.05	127.44	79.510	-2,894.36	2,178.11	2,430.31	2,252.18	178.13	13.643	
9,900.00	5,350.00	5,020.00	5,030.35	53.57	127.44	79.510	-2,894.36	2,178.11	2,465.15	2,286.51	178.65	13.799	
9,950.00	5,350.00	5,020.00	5,030.35	54.10	127.44	79.510	-2,894.36	2,178.11	2,500.51	2,321.35	179.16	13.957	
10,000.00	5,350.00	5,020.00	5,030.35	54.62	127.44	79.510	-2,894.36	2,178.11	2,536.35	2,356.68	179.67	14.116	
10,050.00	5,350.00	5,020.00	5,030.35	55.15	127.44	79.510	-2,894.36	2,178.11	2,572.67	2,392.48	180.19	14.278	
10,100.00	5,350.00	5,020.00	5,030.35	55.67	127.44	79.510	-2,894.36	2,178.11	2,609.45	2,428.74	180.71	14.440	
10,150.00	5,350.00	5,020.00	5,030.35	56.20	127.44	79.510	-2,894.36	2,178.11	2,646.65	2,465.43	181.22	14.604	
10,200.00	5,350.00	5,020.00	5,030.35	56.73	127.44	79.510	-2,894.36	2,178.11	2,684.27	2,502.53	181.74	14.770	
10,250.00	5,350.00	5,020.00	5,030.35	57.26	127.44	79.510	-2,894.36	2,178.11	2,722.29	2,540.03	182.26	14.936	
10,300.00	5,350.00	5,020.00	5,030.35	57.79	127.44	79.510	-2,894.36	2,178.11	2,760.69	2,577.92	182.78	15.104	
10,350.00	5,350.00	5,020.00	5,030.35	58.32	127.44	79.510	-2,894.36	2,178.11	2,799.46	2,616.16	183.30	15.273	
10,400.00	5,350.00	5,020.00	5,030.35	58.85	127.44	79.510	-2,894.36	2,178.11	2,838.58	2,654.76	183.82	15.442	
10,450.00	5,350.00	5,020.00	5,030.35	59.38	127.44	79.510	-2,894.36	2,178.11	2,878.04	2,693.70	184.34	15.613	
10,500.00	5,350.00	5,020.00	5,030.35	59.91	127.44	79.510	-2,894.36	2,178.11	2,917.82	2,732.96	184.86	15.784	
10,550.00	5,350.00	5,020.00	5,030.35	60.44	127.44	79.510	-2,894.36	2,178.11	2,957.91	2,772.52	185.38	15.956	
10,600.00	5,350.00	5,020.00	5,030.35	60.97	127.44	79.510	-2,894.36	2,178.11	2,998.29	2,812.39	185.90	16.128	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 417-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,450.00	4,246.46	4,223.86	4,246.46	18.46	95.91	-87.351	-2,895.89	1,577.97	2,999.39	2,885.05	114.34	26.231	
4,500.00	4,293.55	4,270.95	4,293.55	18.68	97.00	-87.653	-2,895.89	1,577.97	2,998.61	2,882.95	115.66	25.926	
4,550.00	4,340.64	4,318.04	4,340.64	18.91	98.09	-87.956	-2,895.89	1,577.97	2,997.93	2,880.95	116.98	25.628	
4,600.00	4,387.73	4,365.13	4,387.73	19.13	99.18	-88.258	-2,895.89	1,577.97	2,997.34	2,879.05	118.30	25.338	
4,650.00	4,434.91	4,412.31	4,434.91	19.35	100.27	-84.371	-2,895.89	1,577.97	2,996.56	2,877.00	119.56	25.063	
4,700.00	4,482.67	4,460.07	4,482.67	19.57	101.38	-73.782	-2,895.89	1,577.97	2,993.74	2,873.16	120.57	24.829	
4,750.00	4,530.89	4,508.29	4,530.89	19.77	102.49	-60.183	-2,895.89	1,577.97	2,988.51	2,867.22	121.29	24.640	
4,800.00	4,579.34	4,556.78	4,579.34	19.95	103.62	-44.395	-2,895.89	1,577.97	2,980.87	2,859.18	121.69	24.496	
4,850.00	4,627.79	4,605.23	4,627.79	20.12	104.80	-28.477	-2,895.89	1,577.97	2,970.83	2,849.03	121.79	24.392	
4,900.00	4,676.00	4,653.44	4,676.00	20.28	105.96	-14.443	-2,895.89	1,577.97	2,958.43	2,836.86	121.57	24.335	
4,950.00	4,723.73	4,701.16	4,723.73	20.42	107.12	-3.039	-2,895.89	1,577.97	2,943.71	2,822.66	121.05	24.319	
5,000.00	4,770.75	4,748.18	4,770.75	20.54	108.25	6.021	-2,895.89	1,577.97	2,926.74	2,806.47	120.27	24.335	
5,050.00	4,816.83	4,794.26	4,816.83	20.66	109.37	13.340	-2,895.89	1,577.97	2,907.60	2,788.29	119.31	24.370	
5,100.00	4,861.74	4,839.18	4,861.74	20.76	110.45	19.471	-2,895.89	1,577.97	2,886.41	2,768.13	118.28	24.404	
5,150.00	4,905.28	4,882.72	4,905.28	20.86	111.51	24.828	-2,895.89	1,577.97	2,863.26	2,745.96	117.30	24.410	
5,200.00	4,947.22	4,924.66	4,947.22	20.94	112.52	29.707	-2,895.89	1,577.97	2,838.30	2,721.77	116.53	24.357	
5,250.00	4,987.37	4,964.80	4,987.37	21.01	113.91	34.461	-2,895.89	1,577.97	2,811.74	2,695.17	116.56	24.122	
5,300.00	5,025.51	5,002.99	5,025.51	21.07	114.42	38.789	-2,895.89	1,577.97	2,783.57	2,667.29	116.28	23.938	
5,350.00	5,061.48	5,038.96	5,061.48	21.13	115.29	43.229	-2,895.89	1,577.97	2,754.14	2,637.04	117.11	23.519	
5,400.00	5,095.10	5,072.57	5,095.10	21.18	116.10	47.688	-2,895.89	1,577.97	2,723.59	2,604.93	118.66	22.953	
5,450.00	5,126.19	5,103.67	5,126.19	21.21	116.85	52.192	-2,895.89	1,577.97	2,692.13	2,571.20	120.92	22.263	
5,500.00	5,154.62	5,132.09	5,154.62	21.25	117.54	56.736	-2,895.89	1,577.97	2,659.96	2,536.19	123.77	21.492	
5,550.00	5,180.35	5,157.83	5,180.35	21.27	118.16	60.151	-2,895.89	1,577.97	2,627.33	2,500.99	126.34	20.795	
5,600.00	5,205.35	5,182.83	5,205.35	21.30	118.77	60.694	-2,895.89	1,577.97	2,594.84	2,467.41	127.43	20.363	
5,650.00	5,230.35	5,207.83	5,230.35	21.33	119.37	61.244	-2,895.89	1,577.97	2,562.67	2,434.14	128.53	19.938	
5,700.00	5,255.35	5,232.83	5,255.35	21.36	119.98	61.799	-2,895.89	1,577.97	2,530.83	2,401.19	129.63	19.523	
5,750.00	5,280.20	5,257.67	5,280.20	21.40	121.24	64.031	-2,895.89	1,577.97	2,499.42	2,367.13	132.29	18.893	
5,800.00	5,302.17	5,279.64	5,302.17	21.44	121.24	67.919	-2,895.89	1,577.97	2,467.00	2,332.60	134.40	18.356	
5,850.00	5,320.15	5,297.65	5,320.15	21.48	121.54	72.425	-2,895.89	1,577.97	2,433.89	2,296.64	137.24	17.734	
5,900.00	5,333.99	5,311.50	5,333.99	21.52	121.88	77.218	-2,895.89	1,577.97	2,400.26	2,260.32	139.95	17.151	
5,950.00	5,343.59	5,321.10	5,343.59	21.56	122.11	82.037	-2,895.89	1,577.97	2,366.44	2,224.52	141.92	16.674	
6,000.00	5,348.88	5,326.39	5,348.88	21.60	122.24	86.753	-2,895.89	1,577.97	2,332.72	2,189.78	142.94	16.320	
6,050.00	5,350.00	5,327.51	5,350.00	21.64	122.27	90.000	-2,895.89	1,577.97	2,299.39	2,156.29	143.10	16.069	
6,100.00	5,350.00	5,327.51	5,350.00	21.69	122.27	90.000	-2,895.89	1,577.97	2,266.67	2,123.39	143.27	15.821	
6,150.00	5,350.00	5,327.51	5,350.00	21.77	122.27	90.000	-2,895.89	1,577.97	2,234.58	2,091.11	143.47	15.575	
6,200.00	5,350.00	5,327.51	5,350.00	21.87	122.27	90.000	-2,895.89	1,577.97	2,203.16	2,059.49	143.67	15.335	
6,250.00	5,350.00	5,327.51	5,350.00	21.99	122.27	90.000	-2,895.89	1,577.97	2,172.44	2,028.55	143.89	15.098	
6,300.00	5,350.00	5,327.51	5,350.00	22.14	122.27	90.000	-2,895.89	1,577.97	2,142.44	1,998.33	144.11	14.866	
6,350.00	5,350.00	5,327.51	5,350.00	22.32	122.27	90.000	-2,895.89	1,577.97	2,113.20	1,968.84	144.36	14.638	
6,400.00	5,350.00	5,327.51	5,350.00	22.51	122.27	90.000	-2,895.89	1,577.97	2,084.75	1,940.15	144.61	14.417	
6,450.00	5,350.00	5,327.51	5,350.00	22.74	122.27	90.000	-2,895.89	1,577.97	2,057.13	1,912.25	144.88	14.199	
6,500.00	5,350.00	5,327.51	5,350.00	22.98	122.27	90.000	-2,895.89	1,577.97	2,030.35	1,885.21	145.15	13.988	
6,550.00	5,350.00	5,327.51	5,350.00	23.24	122.27	90.000	-2,895.89	1,577.97	2,004.47	1,859.03	145.44	13.782	
6,600.00	5,350.00	5,327.51	5,350.00	23.52	122.27	90.000	-2,895.89	1,577.97	1,979.51	1,833.79	145.73	13.584	
6,650.00	5,350.00	5,327.51	5,350.00	23.81	122.27	90.000	-2,895.89	1,577.97	1,955.52	1,809.48	146.04	13.390	
6,700.00	5,350.00	5,327.51	5,350.00	24.11	122.27	90.000	-2,895.89	1,577.97	1,932.52	1,786.17	146.35	13.205	
6,750.00	5,350.00	5,327.51	5,350.00	24.43	122.27	90.000	-2,895.89	1,577.97	1,910.55	1,763.87	146.68	13.026	
6,800.00	5,350.00	5,327.51	5,350.00	24.75	122.27	90.000	-2,895.89	1,577.97	1,889.65	1,742.64	147.00	12.854	
6,850.00	5,350.00	5,327.51	5,350.00	25.09	122.27	90.000	-2,895.89	1,577.97	1,869.85	1,722.50	147.35	12.690	
6,900.00	5,350.00	5,327.51	5,350.00	25.43	122.27	90.000	-2,895.89	1,577.97	1,851.19	1,703.50	147.69	12.534	
6,950.00	5,350.00	5,327.51	5,350.00	25.79	122.27	90.000	-2,895.89	1,577.97	1,833.70	1,685.65	148.05	12.385	
7,000.00	5,350.00	5,327.51	5,350.00	26.15	122.27	90.000	-2,895.89	1,577.97	1,817.43	1,669.01	148.41	12.246	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 417-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,050.00	5,350.00	5,327.51	5,350.00	26.52	122.27	90.000	-2,895.89	1,577.97	1,802.39	1,653.60	148.79	12.114	
7,100.00	5,350.00	5,327.51	5,350.00	26.89	122.27	90.000	-2,895.89	1,577.97	1,788.63	1,639.47	149.16	11.991	
7,150.00	5,350.00	5,327.51	5,350.00	27.28	122.27	90.000	-2,895.89	1,577.97	1,776.16	1,626.62	149.55	11.877	
7,200.00	5,350.00	5,327.51	5,350.00	27.67	122.27	90.000	-2,895.89	1,577.97	1,765.03	1,615.09	149.93	11.772	
7,250.00	5,350.00	5,327.51	5,350.00	28.07	122.27	90.000	-2,895.89	1,577.97	1,755.25	1,604.92	150.33	11.676	
7,300.00	5,350.00	5,327.51	5,350.00	28.47	122.27	90.000	-2,895.89	1,577.97	1,746.84	1,596.11	150.73	11.589	
7,350.00	5,350.00	5,327.51	5,350.00	28.88	122.27	90.000	-2,895.89	1,577.97	1,739.84	1,588.70	151.14	11.511	
7,400.00	5,350.00	5,327.51	5,350.00	29.29	122.27	90.000	-2,895.89	1,577.97	1,734.24	1,582.70	151.55	11.443	
7,450.00	5,350.00	5,327.51	5,350.00	29.71	122.27	90.000	-2,895.89	1,577.97	1,730.08	1,578.11	151.97	11.384	
7,500.00	5,350.00	5,327.51	5,350.00	30.13	122.27	90.000	-2,895.89	1,577.97	1,727.35	1,574.96	152.39	11.335	
7,550.00	5,350.00	5,327.51	5,350.00	30.56	122.27	90.000	-2,895.89	1,577.97	1,726.07	1,573.25	152.82	11.295	
7,569.30	5,350.00	5,327.51	5,350.00	30.73	122.27	90.000	-2,895.89	1,577.97	1,725.96	1,572.98	152.98	11.282 CC, ES	
7,600.00	5,350.00	5,327.51	5,350.00	30.99	122.27	90.000	-2,895.89	1,577.97	1,726.23	1,572.99	153.24	11.265	
7,650.00	5,350.00	5,327.51	5,350.00	31.43	122.27	90.000	-2,895.89	1,577.97	1,727.85	1,574.17	153.68	11.243	
7,700.00	5,350.00	5,327.51	5,350.00	31.87	122.27	90.000	-2,895.89	1,577.97	1,730.90	1,576.78	154.12	11.231	
7,750.00	5,350.00	5,327.51	5,350.00	32.31	122.27	90.000	-2,895.89	1,577.97	1,735.40	1,580.83	154.56	11.228 SF	
7,800.00	5,350.00	5,327.51	5,350.00	32.76	122.27	90.000	-2,895.89	1,577.97	1,741.31	1,586.30	155.01	11.234	
7,850.00	5,350.00	5,327.51	5,350.00	33.21	122.27	90.000	-2,895.89	1,577.97	1,748.64	1,593.18	155.46	11.248	
7,900.00	5,350.00	5,327.51	5,350.00	33.66	122.27	90.000	-2,895.89	1,577.97	1,757.36	1,601.45	155.91	11.272	
7,950.00	5,350.00	5,327.51	5,350.00	34.12	122.27	90.000	-2,895.89	1,577.97	1,767.45	1,611.08	156.37	11.303	
8,000.00	5,350.00	5,327.51	5,350.00	34.58	122.27	90.000	-2,895.89	1,577.97	1,778.89	1,622.06	156.83	11.343	
8,050.00	5,350.00	5,327.51	5,350.00	35.05	122.27	90.000	-2,895.89	1,577.97	1,791.65	1,634.36	157.29	11.391	
8,100.00	5,350.00	5,327.51	5,350.00	35.51	122.27	90.000	-2,895.89	1,577.97	1,805.71	1,647.95	157.76	11.446	
8,150.00	5,350.00	5,327.51	5,350.00	35.98	122.27	90.000	-2,895.89	1,577.97	1,821.03	1,662.81	158.23	11.509	
8,200.00	5,350.00	5,327.51	5,350.00	36.46	122.27	90.000	-2,895.89	1,577.97	1,837.59	1,678.89	158.70	11.579	
8,250.00	5,350.00	5,327.51	5,350.00	36.93	122.27	90.000	-2,895.89	1,577.97	1,855.34	1,696.17	159.17	11.656	
8,300.00	5,350.00	5,327.51	5,350.00	37.41	122.27	90.000	-2,895.89	1,577.97	1,874.27	1,714.62	159.65	11.740	
8,350.00	5,350.00	5,327.51	5,350.00	37.89	122.27	90.000	-2,895.89	1,577.97	1,894.32	1,734.19	160.13	11.830	
8,400.00	5,350.00	5,327.51	5,350.00	38.37	122.27	90.000	-2,895.89	1,577.97	1,915.47	1,754.86	160.61	11.926	
8,450.00	5,350.00	5,327.51	5,350.00	38.86	122.27	90.000	-2,895.89	1,577.97	1,937.67	1,776.58	161.09	12.028	
8,500.00	5,350.00	5,327.51	5,350.00	39.34	122.27	90.000	-2,895.89	1,577.97	1,960.91	1,799.33	161.58	12.136	
8,550.00	5,350.00	5,327.51	5,350.00	39.83	122.27	90.000	-2,895.89	1,577.97	1,985.13	1,823.06	162.07	12.249	
8,600.00	5,350.00	5,327.51	5,350.00	40.32	122.27	90.000	-2,895.89	1,577.97	2,010.30	1,847.74	162.55	12.367	
8,650.00	5,350.00	5,327.51	5,350.00	40.81	122.27	90.000	-2,895.89	1,577.97	2,036.38	1,873.34	163.05	12.490	
8,700.00	5,350.00	5,327.51	5,350.00	41.31	122.27	90.000	-2,895.89	1,577.97	2,063.36	1,899.82	163.54	12.617	
8,750.00	5,350.00	5,327.51	5,350.00	41.80	122.27	90.000	-2,895.89	1,577.97	2,091.17	1,927.14	164.04	12.748	
8,800.00	5,350.00	5,327.51	5,350.00	42.30	122.27	90.000	-2,895.89	1,577.97	2,119.81	1,955.27	164.53	12.884	
8,850.00	5,350.00	5,327.51	5,350.00	42.80	122.27	90.000	-2,895.89	1,577.97	2,149.22	1,984.19	165.03	13.023	
8,900.00	5,350.00	5,327.51	5,350.00	43.30	122.27	90.000	-2,895.89	1,577.97	2,179.38	2,013.85	165.53	13.166	
8,950.00	5,350.00	5,327.51	5,350.00	43.80	122.27	90.000	-2,895.89	1,577.97	2,210.27	2,044.24	166.03	13.312	
9,000.00	5,350.00	5,327.51	5,350.00	44.30	122.27	90.000	-2,895.89	1,577.97	2,241.84	2,075.31	166.54	13.462	
9,050.00	5,350.00	5,327.51	5,350.00	44.81	122.27	90.000	-2,895.89	1,577.97	2,274.08	2,107.04	167.04	13.614	
9,100.00	5,350.00	5,327.51	5,350.00	45.32	122.27	90.000	-2,895.89	1,577.97	2,306.95	2,139.40	167.55	13.769	
9,150.00	5,350.00	5,327.51	5,350.00	45.82	122.27	90.000	-2,895.89	1,577.97	2,340.42	2,172.37	168.05	13.927	
9,200.00	5,350.00	5,327.51	5,350.00	46.33	122.27	90.000	-2,895.89	1,577.97	2,374.48	2,205.91	168.56	14.087	
9,250.00	5,350.00	5,327.51	5,350.00	46.84	122.27	90.000	-2,895.89	1,577.97	2,409.09	2,240.02	169.07	14.249	
9,300.00	5,350.00	5,327.51	5,350.00	47.35	122.27	90.000	-2,895.89	1,577.97	2,444.23	2,274.65	169.58	14.413	
9,350.00	5,350.00	5,327.51	5,350.00	47.87	122.27	90.000	-2,895.89	1,577.97	2,479.89	2,309.79	170.10	14.579	
9,400.00	5,350.00	5,327.51	5,350.00	48.38	122.27	90.000	-2,895.89	1,577.97	2,516.03	2,345.42	170.61	14.747	
9,450.00	5,350.00	5,327.51	5,350.00	48.90	122.27	90.000	-2,895.89	1,577.97	2,552.64	2,381.52	171.12	14.917	
9,500.00	5,350.00	5,327.51	5,350.00	49.41	122.27	90.000	-2,895.89	1,577.97	2,589.70	2,418.06	171.64	15.088	
9,550.00	5,350.00	5,327.51	5,350.00	49.93	122.27	90.000	-2,895.89	1,577.97	2,627.19	2,455.03	172.16	15.260	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 417-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.00	5,350.00	5,327.51	5,350.00	50.45	122.27	90.000	-2,895.89	1,577.97	2,665.09	2,492.42	172.67	15.434	
9,650.00	5,350.00	5,327.51	5,350.00	50.97	122.27	90.000	-2,895.89	1,577.97	2,703.38	2,530.19	173.19	15.609	
9,700.00	5,350.00	5,327.51	5,350.00	51.48	122.27	90.000	-2,895.89	1,577.97	2,742.05	2,568.34	173.71	15.785	
9,750.00	5,350.00	5,327.51	5,350.00	52.01	122.27	90.000	-2,895.89	1,577.97	2,781.08	2,606.85	174.23	15.962	
9,800.00	5,350.00	5,327.51	5,350.00	52.53	122.27	90.000	-2,895.89	1,577.97	2,820.46	2,645.70	174.75	16.140	
9,850.00	5,350.00	5,327.51	5,350.00	53.05	122.27	90.000	-2,895.89	1,577.97	2,860.17	2,684.89	175.28	16.318	
9,900.00	5,350.00	5,327.51	5,350.00	53.57	122.27	90.000	-2,895.89	1,577.97	2,900.19	2,724.39	175.80	16.497	
9,950.00	5,350.00	5,327.51	5,350.00	54.10	122.27	90.000	-2,895.89	1,577.97	2,940.53	2,764.20	176.32	16.677	
10,000.00	5,350.00	5,327.51	5,350.00	54.62	122.27	90.000	-2,895.89	1,577.97	2,981.15	2,804.30	176.85	16.857	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 1465-MWD+HGRF												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,950.00	5,350.00	5,037.00	5,030.34	34.12	15.31	50.863	-1,552.72	4,875.78	2,964.75	2,922.62	42.13	70.367	
8,000.00	5,350.00	5,037.00	5,030.34	34.58	15.31	50.863	-1,552.72	4,875.78	2,915.50	2,873.00	42.50	68.601	
8,050.00	5,350.00	5,037.00	5,030.34	35.05	15.31	50.863	-1,552.72	4,875.78	2,866.27	2,823.40	42.87	66.860	
8,100.00	5,350.00	5,037.00	5,030.34	35.51	15.31	50.863	-1,552.72	4,875.78	2,817.07	2,773.83	43.24	65.148	
8,150.00	5,350.00	5,037.00	5,030.34	35.98	15.31	50.863	-1,552.72	4,875.78	2,767.90	2,724.29	43.62	63.460	
8,200.00	5,350.00	5,037.00	5,030.34	36.46	15.31	50.863	-1,552.72	4,875.78	2,718.76	2,674.77	43.99	61.802	
8,250.00	5,350.00	5,037.00	5,030.34	36.93	15.31	50.863	-1,552.72	4,875.78	2,669.65	2,625.28	44.37	60.166	
8,300.00	5,350.00	5,037.00	5,030.34	37.41	15.31	50.863	-1,552.72	4,875.78	2,620.58	2,575.83	44.75	58.559	
8,350.00	5,350.00	5,037.00	5,030.34	37.89	15.31	50.863	-1,552.72	4,875.78	2,571.54	2,526.41	45.13	56.976	
8,400.00	5,350.00	5,037.00	5,030.34	38.37	15.31	50.863	-1,552.72	4,875.78	2,522.54	2,477.02	45.52	55.419	
8,450.00	5,350.00	5,037.00	5,030.34	38.86	15.31	50.863	-1,552.72	4,875.78	2,473.58	2,427.67	45.90	53.885	
8,500.00	5,350.00	5,037.00	5,030.34	39.34	15.31	50.863	-1,552.72	4,875.78	2,424.66	2,378.37	46.29	52.378	
8,550.00	5,350.00	5,037.00	5,030.34	39.83	15.31	50.863	-1,552.72	4,875.78	2,375.78	2,329.10	46.68	50.893	
8,600.00	5,350.00	5,037.00	5,030.34	40.32	15.31	50.863	-1,552.72	4,875.78	2,326.96	2,279.88	47.07	49.433	
8,650.00	5,350.00	5,037.00	5,030.34	40.81	15.31	50.863	-1,552.72	4,875.78	2,278.18	2,230.72	47.47	47.996	
8,700.00	5,350.00	5,037.00	5,030.34	41.31	15.31	50.863	-1,552.72	4,875.78	2,229.46	2,181.60	47.86	46.583	
8,750.00	5,350.00	5,037.00	5,030.34	41.80	15.31	50.863	-1,552.72	4,875.78	2,180.80	2,132.54	48.26	45.192	
8,800.00	5,350.00	5,037.00	5,030.34	42.30	15.31	50.863	-1,552.72	4,875.78	2,132.20	2,083.54	48.65	43.825	
8,850.00	5,350.00	5,037.00	5,030.34	42.80	15.31	50.863	-1,552.72	4,875.78	2,083.66	2,034.61	49.05	42.479	
8,900.00	5,350.00	5,037.00	5,030.34	43.30	15.31	50.863	-1,552.72	4,875.78	2,035.20	1,985.74	49.45	41.156	
8,950.00	5,350.00	5,037.00	5,030.34	43.80	15.31	50.863	-1,552.72	4,875.78	1,986.81	1,936.95	49.85	39.853	
9,000.00	5,350.00	5,037.00	5,030.34	44.30	15.31	50.863	-1,552.72	4,875.78	1,938.50	1,888.25	50.26	38.573	
9,050.00	5,350.00	5,037.00	5,030.34	44.81	15.31	50.863	-1,552.72	4,875.78	1,890.28	1,839.62	50.66	37.314	
9,100.00	5,350.00	5,037.00	5,030.34	45.32	15.31	50.863	-1,552.72	4,875.78	1,842.16	1,791.10	51.06	36.076	
9,150.00	5,350.00	5,037.00	5,030.34	45.82	15.31	50.863	-1,552.72	4,875.78	1,794.14	1,742.67	51.47	34.858	
9,200.00	5,350.00	5,037.00	5,030.34	46.33	15.31	50.863	-1,552.72	4,875.78	1,746.23	1,694.35	51.88	33.661	
9,250.00	5,350.00	5,037.00	5,030.34	46.84	15.31	50.863	-1,552.72	4,875.78	1,698.44	1,646.16	52.29	32.484	
9,300.00	5,350.00	5,037.00	5,030.34	47.35	15.31	50.863	-1,552.72	4,875.78	1,650.78	1,598.09	52.69	31.328	
9,350.00	5,350.00	5,037.00	5,030.34	47.87	15.31	50.863	-1,552.72	4,875.78	1,603.27	1,550.16	53.10	30.191	
9,400.00	5,350.00	5,037.00	5,030.34	48.38	15.31	50.863	-1,552.72	4,875.78	1,555.91	1,502.39	53.52	29.074	
9,450.00	5,350.00	5,037.00	5,030.34	48.90	15.31	50.863	-1,552.72	4,875.78	1,508.72	1,454.79	53.93	27.976	
9,500.00	5,350.00	5,037.00	5,030.34	49.41	15.31	50.863	-1,552.72	4,875.78	1,461.72	1,407.38	54.34	26.899	
9,550.00	5,350.00	5,037.00	5,030.34	49.93	15.31	50.863	-1,552.72	4,875.78	1,414.92	1,360.16	54.76	25.841	
9,600.00	5,350.00	5,037.00	5,030.34	50.45	15.31	50.863	-1,552.72	4,875.78	1,368.35	1,313.18	55.17	24.802	
9,650.00	5,350.00	5,037.00	5,030.34	50.97	15.31	50.863	-1,552.72	4,875.78	1,322.03	1,266.44	55.59	23.784	
9,700.00	5,350.00	5,037.00	5,030.34	51.48	15.31	50.863	-1,552.72	4,875.78	1,275.99	1,219.99	56.00	22.785	
9,750.00	5,350.00	5,037.00	5,030.34	52.01	15.31	50.863	-1,552.72	4,875.78	1,230.25	1,173.84	56.42	21.805	
9,800.00	5,350.00	5,037.00	5,030.34	52.53	15.31	50.863	-1,552.72	4,875.78	1,184.87	1,128.03	56.84	20.847	
9,850.00	5,350.00	5,037.00	5,030.34	53.05	15.31	50.863	-1,552.72	4,875.78	1,139.86	1,082.61	57.26	19.908	
9,900.00	5,350.00	5,037.00	5,030.34	53.57	15.31	50.863	-1,552.72	4,875.78	1,095.30	1,037.62	57.68	18.991	
9,950.00	5,350.00	5,037.00	5,030.34	54.10	15.31	50.863	-1,552.72	4,875.78	1,051.22	993.12	58.10	18.094	
10,000.00	5,350.00	5,037.00	5,030.34	54.62	15.31	50.863	-1,552.72	4,875.78	1,007.69	949.17	58.52	17.220	
10,050.00	5,350.00	5,037.00	5,030.34	55.15	15.31	50.863	-1,552.72	4,875.78	964.79	905.85	58.94	16.369	
10,100.00	5,350.00	5,037.00	5,030.34	55.67	15.31	50.863	-1,552.72	4,875.78	922.61	863.25	59.36	15.542	
10,150.00	5,350.00	5,037.00	5,030.34	56.20	15.31	50.863	-1,552.72	4,875.78	881.24	821.46	59.78	14.740	
10,200.00	5,350.00	5,037.00	5,030.34	56.73	15.31	50.863	-1,552.72	4,875.78	840.82	780.61	60.21	13.965	
10,250.00	5,350.00	5,037.00	5,030.34	57.26	15.31	50.863	-1,552.72	4,875.78	801.47	740.84	60.63	13.219	
10,300.00	5,350.00	5,037.00	5,030.34	57.79	15.31	50.863	-1,552.72	4,875.78	763.37	702.31	61.06	12.503	
10,350.00	5,350.00	5,037.00	5,030.34	58.32	15.31	50.863	-1,552.72	4,875.78	726.72	665.23	61.48	11.820	
10,400.00	5,350.00	5,037.00	5,030.34	58.85	15.31	50.863	-1,552.72	4,875.78	691.74	629.83	61.91	11.174	
10,450.00	5,350.00	5,037.00	5,030.34	59.38	15.31	50.863	-1,552.72	4,875.78	658.70	596.36	62.33	10.567	
10,500.00	5,350.00	5,037.00	5,030.34	59.91	15.31	50.863	-1,552.72	4,875.78	627.91	565.14	62.76	10.005	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - MCINTYRE W D 'C' #7 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 1465-MWD+IGRF												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,550.00	5,350.00	5,037.00	5,030.34	60.44	15.31	50.863	-1,552.72	4,875.78	599.71	536.52	63.19	9.491	
10,600.00	5,350.00	5,037.00	5,030.34	60.97	15.31	50.863	-1,552.72	4,875.78	574.48	510.87	63.62	9.030	
10,650.00	5,350.00	5,037.00	5,030.34	61.51	15.31	50.863	-1,552.72	4,875.78	552.64	488.60	64.05	8.629	
10,700.00	5,350.00	5,037.00	5,030.34	62.04	15.31	50.863	-1,552.72	4,875.78	534.60	470.12	64.47	8.292	
10,750.00	5,350.00	5,037.00	5,030.34	62.58	15.31	50.863	-1,552.72	4,875.78	520.75	455.84	64.90	8.023	
10,800.00	5,350.00	5,037.00	5,030.34	63.11	15.31	50.863	-1,552.72	4,875.78	511.43	446.10	65.33	7.828	
10,850.00	5,350.00	5,037.00	5,030.34	63.65	15.31	50.863	-1,552.72	4,875.78	506.90	441.13	65.76	7.708	
10,871.17	5,350.00	5,037.00	5,030.34	63.87	15.31	50.863	-1,552.72	4,875.78	506.45	440.51	65.95	7.680	CC, ES
10,900.00	5,350.00	5,037.00	5,030.34	64.18	15.31	50.863	-1,552.72	4,875.78	507.27	441.08	66.20	7.663	SF
10,950.00	5,350.00	5,037.00	5,030.34	64.72	15.31	50.863	-1,552.72	4,875.78	512.55	445.93	66.63	7.693	
11,000.00	5,350.00	5,037.00	5,030.34	65.25	15.31	50.863	-1,552.72	4,875.78	522.58	455.52	67.06	7.793	
11,050.00	5,350.00	5,037.00	5,030.34	65.79	15.31	50.863	-1,552.72	4,875.78	537.10	469.61	67.49	7.958	
11,100.00	5,350.00	5,037.00	5,030.34	66.33	15.31	50.863	-1,552.72	4,875.78	555.75	487.83	67.92	8.182	
11,150.00	5,350.00	5,037.00	5,030.34	66.87	15.31	50.863	-1,552.72	4,875.78	578.14	509.78	68.36	8.458	
11,165.49	5,350.00	5,037.00	5,030.34	67.03	15.31	50.863	-1,552.72	4,875.78	585.76	517.27	68.49	8.553	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,350.00	5,350.00	5,336.00	5,350.00	37.89	207.16	90.000	-2,890.63	4,803.42	2,995.24	2,750.22	245.02	12.224		
8,400.00	5,350.00	5,336.00	5,350.00	38.37	207.16	90.000	-2,890.63	4,803.42	2,954.57	2,709.07	245.50	12.035		
8,450.00	5,350.00	5,336.00	5,350.00	38.86	207.16	90.000	-2,890.63	4,803.42	2,914.19	2,668.20	245.99	11.847		
8,500.00	5,350.00	5,336.00	5,350.00	39.34	207.16	90.000	-2,890.63	4,803.42	2,874.11	2,627.64	246.47	11.661		
8,550.00	5,350.00	5,336.00	5,350.00	39.83	207.16	90.000	-2,890.63	4,803.42	2,834.35	2,587.39	246.96	11.477		
8,600.00	5,350.00	5,336.00	5,350.00	40.32	207.16	90.000	-2,890.63	4,803.42	2,794.92	2,547.47	247.45	11.295		
8,650.00	5,350.00	5,336.00	5,350.00	40.81	207.16	90.000	-2,890.63	4,803.42	2,755.83	2,507.89	247.94	11.115		
8,700.00	5,350.00	5,336.00	5,350.00	41.31	207.16	90.000	-2,890.63	4,803.42	2,717.10	2,468.67	248.43	10.937		
8,750.00	5,350.00	5,336.00	5,350.00	41.80	207.16	90.000	-2,890.63	4,803.42	2,678.74	2,429.81	248.93	10.761		
8,800.00	5,350.00	5,336.00	5,350.00	42.30	207.16	90.000	-2,890.63	4,803.42	2,640.77	2,391.35	249.43	10.587		
8,850.00	5,350.00	5,336.00	5,350.00	42.80	207.16	90.000	-2,890.63	4,803.42	2,603.21	2,353.29	249.93	10.416		
8,900.00	5,350.00	5,336.00	5,350.00	43.30	207.16	90.000	-2,890.63	4,803.42	2,566.07	2,315.65	250.42	10.247		
8,950.00	5,350.00	5,336.00	5,350.00	43.80	207.16	90.000	-2,890.63	4,803.42	2,529.38	2,278.45	250.93	10.080		
9,000.00	5,350.00	5,336.00	5,350.00	44.30	207.16	90.000	-2,890.63	4,803.42	2,493.15	2,241.72	251.43	9.916		
9,050.00	5,350.00	5,336.00	5,350.00	44.81	207.16	90.000	-2,890.63	4,803.42	2,457.40	2,205.46	251.94	9.754		
9,100.00	5,350.00	5,336.00	5,350.00	45.32	207.16	90.000	-2,890.63	4,803.42	2,422.16	2,169.71	252.44	9.595		
9,150.00	5,350.00	5,336.00	5,350.00	45.82	207.16	90.000	-2,890.63	4,803.42	2,387.44	2,134.49	252.95	9.438		
9,200.00	5,350.00	5,336.00	5,350.00	46.33	207.16	90.000	-2,890.63	4,803.42	2,353.27	2,099.81	253.46	9.285		
9,250.00	5,350.00	5,336.00	5,350.00	46.84	207.16	90.000	-2,890.63	4,803.42	2,319.68	2,065.71	253.97	9.134		
9,300.00	5,350.00	5,336.00	5,350.00	47.35	207.16	90.000	-2,890.63	4,803.42	2,286.69	2,032.21	254.48	8.986		
9,350.00	5,350.00	5,336.00	5,350.00	47.87	207.16	90.000	-2,890.63	4,803.42	2,254.32	1,999.33	254.99	8.841		
9,400.00	5,350.00	5,336.00	5,350.00	48.38	207.16	90.000	-2,890.63	4,803.42	2,222.61	1,967.10	255.50	8.699		
9,450.00	5,350.00	5,336.00	5,350.00	48.90	207.16	90.000	-2,890.63	4,803.42	2,191.58	1,935.56	256.02	8.560		
9,500.00	5,350.00	5,336.00	5,350.00	49.41	207.16	90.000	-2,890.63	4,803.42	2,161.26	1,904.72	256.53	8.425		
9,550.00	5,350.00	5,336.00	5,350.00	49.93	207.16	90.000	-2,890.63	4,803.42	2,131.68	1,874.63	257.05	8.293		
9,600.00	5,350.00	5,336.00	5,350.00	50.45	207.16	90.000	-2,890.63	4,803.42	2,102.88	1,845.31	257.57	8.164		
9,650.00	5,350.00	5,336.00	5,350.00	50.97	207.16	90.000	-2,890.63	4,803.42	2,074.88	1,816.79	258.09	8.039		
9,700.00	5,350.00	5,336.00	5,350.00	51.48	207.16	90.000	-2,890.63	4,803.42	2,047.72	1,789.11	258.61	7.918		
9,750.00	5,350.00	5,336.00	5,350.00	52.01	207.16	90.000	-2,890.63	4,803.42	2,021.43	1,762.30	259.13	7.801		
9,800.00	5,350.00	5,336.00	5,350.00	52.53	207.16	90.000	-2,890.63	4,803.42	1,996.04	1,736.39	259.65	7.687		
9,850.00	5,350.00	5,336.00	5,350.00	53.05	207.16	90.000	-2,890.63	4,803.42	1,971.60	1,711.43	260.17	7.578		
9,900.00	5,350.00	5,336.00	5,350.00	53.57	207.16	90.000	-2,890.63	4,803.42	1,948.14	1,687.44	260.69	7.473		
9,950.00	5,350.00	5,336.00	5,350.00	54.10	207.16	90.000	-2,890.63	4,803.42	1,925.69	1,664.47	261.22	7.372		
10,000.00	5,350.00	5,336.00	5,350.00	54.62	207.16	90.000	-2,890.63	4,803.42	1,904.28	1,642.54	261.74	7.275		
10,050.00	5,350.00	5,336.00	5,350.00	55.15	207.16	90.000	-2,890.63	4,803.42	1,883.96	1,621.69	262.27	7.183		
10,100.00	5,350.00	5,336.00	5,350.00	55.67	207.16	90.000	-2,890.63	4,803.42	1,864.76	1,601.97	262.80	7.096		
10,150.00	5,350.00	5,336.00	5,350.00	56.20	207.16	90.000	-2,890.63	4,803.42	1,846.72	1,583.40	263.32	7.013		
10,200.00	5,350.00	5,336.00	5,350.00	56.73	207.16	90.000	-2,890.63	4,803.42	1,829.86	1,566.01	263.85	6.935		
10,250.00	5,350.00	5,336.00	5,350.00	57.26	207.16	90.000	-2,890.63	4,803.42	1,814.23	1,549.85	264.38	6.862		
10,300.00	5,350.00	5,336.00	5,350.00	57.79	207.16	90.000	-2,890.63	4,803.42	1,799.84	1,534.94	264.91	6.794		
10,350.00	5,350.00	5,336.00	5,350.00	58.32	207.16	90.000	-2,890.63	4,803.42	1,786.75	1,521.31	265.44	6.731		
10,400.00	5,350.00	5,336.00	5,350.00	58.85	207.16	90.000	-2,890.63	4,803.42	1,774.96	1,509.00	265.97	6.674		
10,450.00	5,350.00	5,336.00	5,350.00	59.38	207.16	90.000	-2,890.63	4,803.42	1,764.52	1,498.02	266.50	6.621		
10,500.00	5,350.00	5,336.00	5,350.00	59.91	207.16	90.000	-2,890.63	4,803.42	1,755.43	1,488.40	267.03	6.574		
10,550.00	5,350.00	5,336.00	5,350.00	60.44	207.16	90.000	-2,890.63	4,803.42	1,747.73	1,480.17	267.56	6.532		
10,600.00	5,350.00	5,336.00	5,350.00	60.97	207.16	90.000	-2,890.63	4,803.42	1,741.43	1,473.34	268.10	6.496		
10,650.00	5,350.00	5,336.00	5,350.00	61.51	207.16	90.000	-2,890.63	4,803.42	1,736.55	1,467.92	268.63	6.465		
10,700.00	5,350.00	5,336.00	5,350.00	62.04	207.16	90.000	-2,890.63	4,803.42	1,733.10	1,463.94	269.16	6.439		
10,750.00	5,350.00	5,336.00	5,350.00	62.58	207.16	90.000	-2,890.63	4,803.42	1,731.09	1,461.39	269.70	6.419		
10,794.75	5,350.00	5,336.00	5,350.00	63.05	207.16	90.000	-2,890.63	4,803.42	1,730.51	1,460.34	270.18	6.405 CC		
10,800.00	5,350.00	5,336.00	5,350.00	63.11	207.16	90.000	-2,890.63	4,803.42	1,730.52	1,460.29	270.23	6.404 ES		
10,850.00	5,350.00	5,336.00	5,350.00	63.65	207.16	90.000	-2,890.63	4,803.42	1,731.39	1,460.63	270.77	6.394		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,900.00	5,350.00	5,336.00	5,350.00	64.18	207.16	90.000	-2,890.63	4,803.42	1,733.71	1,462.41	271.30	6.390 SF	
10,950.00	5,350.00	5,336.00	5,350.00	64.72	207.16	90.000	-2,890.63	4,803.42	1,737.46	1,465.62	271.84	6.391	
11,000.00	5,350.00	5,336.00	5,350.00	65.25	207.16	90.000	-2,890.63	4,803.42	1,742.64	1,470.26	272.38	6.398	
11,050.00	5,350.00	5,336.00	5,350.00	65.79	207.16	90.000	-2,890.63	4,803.42	1,749.23	1,476.32	272.91	6.409	
11,100.00	5,350.00	5,336.00	5,350.00	66.33	207.16	90.000	-2,890.63	4,803.42	1,757.23	1,483.78	273.45	6.426	
11,150.00	5,350.00	5,336.00	5,350.00	66.87	207.16	90.000	-2,890.63	4,803.42	1,766.60	1,492.61	273.99	6.448	
11,165.49	5,350.00	5,336.00	5,350.00	67.03	207.16	90.000	-2,890.63	4,803.42	1,769.78	1,495.62	274.16	6.455	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 343-INC-ONLY												Offset Well Error:	0.00 usft
OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	10.00	0.00	0.00	0.10	81.980	407.97	2,895.66	2,924.26				
50.00	50.00	60.00	50.00	0.05	0.62	81.980	407.97	2,895.66	2,924.26	2,923.59	0.67	4,374.606	
100.00	100.00	110.00	100.00	0.14	1.13	81.980	407.97	2,895.66	2,924.26	2,922.99	1.27	2,301.980	
150.00	150.00	160.00	150.00	0.32	1.64	81.980	407.97	2,895.66	2,924.26	2,922.30	1.96	1,490.598	
200.00	200.00	210.00	200.00	0.50	2.15	81.980	407.97	2,895.66	2,924.26	2,921.61	2.65	1,102.130	
250.00	250.00	260.00	250.00	0.68	2.67	81.980	407.97	2,895.66	2,924.26	2,920.91	3.34	874.281	
300.00	300.00	310.00	300.00	0.86	3.18	81.980	407.97	2,895.66	2,924.26	2,920.22	4.04	724.501	
350.00	350.00	360.00	350.00	1.03	3.85	-134.719	407.97	2,895.66	2,924.57	2,919.68	4.88	599.045	
400.00	399.98	409.98	399.98	1.21	4.83	-134.724	407.97	2,895.66	2,925.49	2,919.44	6.04	484.191	
450.00	449.93	459.93	449.93	1.38	5.81	-134.733	407.97	2,895.66	2,927.02	2,919.82	7.20	406.543	
500.00	499.84	509.84	499.84	1.55	6.79	-134.744	407.97	2,895.66	2,929.17	2,920.82	8.35	350.600	
550.00	549.68	559.68	549.68	1.73	7.77	-134.760	407.97	2,895.66	2,931.94	2,922.43	9.51	308.273	
600.00	599.45	609.45	599.45	1.90	8.75	-134.778	407.97	2,895.66	2,935.32	2,924.66	10.66	275.303	
650.00	649.13	659.13	649.13	2.08	9.73	-134.799	407.97	2,895.66	2,939.32	2,927.51	11.81	248.855	
700.00	698.70	708.70	698.70	2.26	10.70	-134.823	407.97	2,895.66	2,943.94	2,930.99	12.95	227.260	
750.00	748.15	758.17	748.15	2.44	11.65	-134.849	407.97	2,895.66	2,949.18	2,935.11	14.07	209.633	
800.00	797.47	807.49	797.47	2.62	12.55	-134.878	407.97	2,895.66	2,955.04	2,939.91	15.13	195.281	
850.00	846.63	856.65	846.63	2.80	13.45	-134.910	407.97	2,895.66	2,961.53	2,945.34	16.19	182.909	
900.00	895.62	905.64	895.62	2.99	14.34	-134.943	407.97	2,895.66	2,968.64	2,951.40	17.24	172.193	
950.00	944.44	954.46	944.44	3.18	15.23	-134.978	407.97	2,895.66	2,976.38	2,958.09	18.28	162.795	
1,000.00	993.06	1,003.08	993.06	3.37	16.12	-135.014	407.97	2,895.66	2,984.75	2,965.43	19.32	154.526	
1,050.00	1,041.46	1,051.48	1,041.46	3.56	17.01	-135.052	407.97	2,895.66	2,993.75	2,973.41	20.34	147.189	
6,350.00	5,350.00	5,360.17	5,350.00	22.32	103.95	-90.000	407.97	2,895.66	2,994.07	2,868.02	126.05	23.753	
6,400.00	5,350.00	5,360.17	5,350.00	22.51	103.95	-90.000	407.97	2,895.66	2,951.65	2,825.35	126.30	23.371	
6,450.00	5,350.00	5,360.17	5,350.00	22.74	103.95	-90.000	407.97	2,895.66	2,909.47	2,782.91	126.57	22.988	
6,500.00	5,350.00	5,360.17	5,350.00	22.98	103.95	-90.000	407.97	2,895.66	2,867.55	2,740.71	126.84	22.608	
6,550.00	5,350.00	5,360.17	5,350.00	23.24	103.95	-90.000	407.97	2,895.66	2,825.88	2,698.76	127.13	22.229	
6,600.00	5,350.00	5,360.17	5,350.00	23.52	103.95	-90.000	407.97	2,895.66	2,784.50	2,657.08	127.42	21.853	
6,650.00	5,350.00	5,360.17	5,350.00	23.81	103.95	-90.000	407.97	2,895.66	2,743.40	2,615.67	127.73	21.478	
6,700.00	5,350.00	5,360.17	5,350.00	24.11	103.95	-90.000	407.97	2,895.66	2,702.59	2,574.56	128.04	21.108	
6,750.00	5,350.00	5,360.17	5,350.00	24.43	103.95	-90.000	407.97	2,895.66	2,662.11	2,533.74	128.37	20.738	
6,800.00	5,350.00	5,360.17	5,350.00	24.75	103.95	-90.000	407.97	2,895.66	2,621.95	2,493.25	128.69	20.374	
6,850.00	5,350.00	5,360.17	5,350.00	25.09	103.95	-90.000	407.97	2,895.66	2,582.13	2,453.09	129.04	20.011	
6,900.00	5,350.00	5,360.17	5,350.00	25.43	103.95	-90.000	407.97	2,895.66	2,542.68	2,413.29	129.38	19.652	
6,950.00	5,350.00	5,360.17	5,350.00	25.79	103.95	-90.000	407.97	2,895.66	2,503.60	2,373.86	129.74	19.297	
7,000.00	5,350.00	5,360.17	5,350.00	26.15	103.95	-90.000	407.97	2,895.66	2,464.91	2,334.81	130.10	18.946	
7,050.00	5,350.00	5,360.17	5,350.00	26.52	103.95	-90.000	407.97	2,895.66	2,426.64	2,296.17	130.48	18.598	
7,100.00	5,350.00	5,360.17	5,350.00	26.89	103.95	-90.000	407.97	2,895.66	2,388.81	2,257.96	130.85	18.256	
7,150.00	5,350.00	5,360.17	5,350.00	27.28	103.95	-90.000	407.97	2,895.66	2,351.42	2,220.19	131.24	17.917	
7,200.00	5,350.00	5,360.17	5,350.00	27.67	103.95	-90.000	407.97	2,895.66	2,314.52	2,182.89	131.62	17.584	
7,250.00	5,350.00	5,360.17	5,350.00	28.07	103.95	-90.000	407.97	2,895.66	2,278.11	2,146.09	132.02	17.256	
7,300.00	5,350.00	5,360.17	5,350.00	28.47	103.95	-90.000	407.97	2,895.66	2,242.23	2,109.81	132.42	16.933	
7,350.00	5,350.00	5,360.17	5,350.00	28.88	103.95	-90.000	407.97	2,895.66	2,206.89	2,074.06	132.83	16.615	
7,400.00	5,350.00	5,360.17	5,350.00	29.29	103.95	-90.000	407.97	2,895.66	2,172.14	2,038.90	133.24	16.303	
7,450.00	5,350.00	5,360.17	5,350.00	29.71	103.95	-90.000	407.97	2,895.66	2,137.98	2,004.33	133.66	15.996	
7,500.00	5,350.00	5,360.17	5,350.00	30.13	103.95	-90.000	407.97	2,895.66	2,104.46	1,970.39	134.08	15.696	
7,550.00	5,350.00	5,360.17	5,350.00	30.56	103.95	-90.000	407.97	2,895.66	2,071.61	1,937.10	134.51	15.402	
7,600.00	5,350.00	5,360.17	5,350.00	30.99	103.95	-90.000	407.97	2,895.66	2,039.45	1,904.52	134.93	15.114	
7,650.00	5,350.00	5,360.17	5,350.00	31.43	103.95	-90.000	407.97	2,895.66	2,008.02	1,872.65	135.37	14.834	
7,700.00	5,350.00	5,360.17	5,350.00	31.87	103.95	-90.000	407.97	2,895.66	1,977.36	1,841.55	135.81	14.560	
7,750.00	5,350.00	5,360.17	5,350.00	32.31	103.95	-90.000	407.97	2,895.66	1,947.50	1,811.25	136.25	14.293	
7,800.00	5,350.00	5,360.17	5,350.00	32.76	103.95	-90.000	407.97	2,895.66	1,918.48	1,781.78	136.70	14.035	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 343-INC-ONLY												Offset Well Error:	0.00 usft
OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,850.00	5,350.00	5,360.17	5,350.00	33.21	103.95	-90.000	407.97	2,895.66	1,890.33	1,753.18	137.15	13.783	
7,900.00	5,350.00	5,360.17	5,350.00	33.66	103.95	-90.000	407.97	2,895.66	1,863.10	1,725.50	137.60	13.540	
7,950.00	5,350.00	5,360.17	5,350.00	34.12	103.95	-90.000	407.97	2,895.66	1,836.83	1,698.77	138.06	13.305	
8,000.00	5,350.00	5,360.17	5,350.00	34.58	103.95	-90.000	407.97	2,895.66	1,811.56	1,673.04	138.52	13.078	
8,050.00	5,350.00	5,360.17	5,350.00	35.05	103.95	-90.000	407.97	2,895.66	1,787.33	1,648.35	138.98	12.860	
8,100.00	5,350.00	5,360.17	5,350.00	35.51	103.95	-90.000	407.97	2,895.66	1,764.18	1,624.74	139.45	12.651	
8,150.00	5,350.00	5,360.17	5,350.00	35.98	103.95	-90.000	407.97	2,895.66	1,742.16	1,602.25	139.92	12.451	
8,200.00	5,350.00	5,360.17	5,350.00	36.46	103.95	-90.000	407.97	2,895.66	1,721.32	1,580.93	140.39	12.261	
8,250.00	5,350.00	5,360.17	5,350.00	36.93	103.95	-90.000	407.97	2,895.66	1,701.68	1,560.82	140.86	12.081	
8,300.00	5,350.00	5,360.17	5,350.00	37.41	103.95	-90.000	407.97	2,895.66	1,683.31	1,541.97	141.34	11.910	
8,350.00	5,350.00	5,360.17	5,350.00	37.89	103.95	-90.000	407.97	2,895.66	1,666.23	1,524.41	141.82	11.749	
8,400.00	5,350.00	5,360.17	5,350.00	38.37	103.95	-90.000	407.97	2,895.66	1,650.49	1,508.19	142.30	11.599	
8,450.00	5,350.00	5,360.17	5,350.00	38.86	103.95	-90.000	407.97	2,895.66	1,636.13	1,493.35	142.78	11.459	
8,500.00	5,350.00	5,360.17	5,350.00	39.34	103.95	-90.000	407.97	2,895.66	1,623.18	1,479.91	143.27	11.330	
8,550.00	5,350.00	5,360.17	5,350.00	39.83	103.95	-90.000	407.97	2,895.66	1,611.68	1,467.93	143.76	11.211	
8,600.00	5,350.00	5,360.17	5,350.00	40.32	103.95	-90.000	407.97	2,895.66	1,601.66	1,457.42	144.24	11.104	
8,650.00	5,350.00	5,360.17	5,350.00	40.81	103.95	-90.000	407.97	2,895.66	1,593.14	1,448.41	144.74	11.007	
8,700.00	5,350.00	5,360.17	5,350.00	41.31	103.95	-90.000	407.97	2,895.66	1,586.16	1,440.93	145.23	10.922	
8,750.00	5,350.00	5,360.17	5,350.00	41.80	103.95	-90.000	407.97	2,895.66	1,580.73	1,435.00	145.72	10.847	
8,800.00	5,350.00	5,360.17	5,350.00	42.30	103.95	-90.000	407.97	2,895.66	1,576.86	1,430.64	146.22	10.784	
8,850.00	5,350.00	5,360.17	5,350.00	42.80	103.95	-90.000	407.97	2,895.66	1,574.58	1,427.86	146.72	10.732	
8,897.03	5,350.00	5,360.17	5,350.00	43.27	103.95	-90.000	407.97	2,895.66	1,573.88	1,426.69	147.19	10.693	CC
8,900.00	5,350.00	5,360.17	5,350.00	43.30	103.95	-90.000	407.97	2,895.66	1,573.88	1,426.66	147.22	10.691	ES
8,950.00	5,350.00	5,360.17	5,350.00	43.80	103.95	-90.000	407.97	2,895.66	1,574.77	1,427.05	147.72	10.660	
9,000.00	5,350.00	5,360.17	5,350.00	44.30	103.95	-90.000	407.97	2,895.66	1,577.24	1,429.02	148.22	10.641	
9,050.00	5,350.00	5,360.17	5,350.00	44.81	103.95	-90.000	407.97	2,895.66	1,581.29	1,432.56	148.73	10.632	SF
9,100.00	5,350.00	5,360.17	5,350.00	45.32	103.95	-90.000	407.97	2,895.66	1,586.91	1,437.67	149.24	10.634	
9,150.00	5,350.00	5,360.17	5,350.00	45.82	103.95	-90.000	407.97	2,895.66	1,594.08	1,444.33	149.74	10.645	
9,200.00	5,350.00	5,360.17	5,350.00	46.33	103.95	-90.000	407.97	2,895.66	1,602.77	1,452.52	150.25	10.667	
9,250.00	5,350.00	5,360.17	5,350.00	46.84	103.95	-90.000	407.97	2,895.66	1,612.97	1,462.21	150.76	10.699	
9,300.00	5,350.00	5,360.17	5,350.00	47.35	103.95	-90.000	407.97	2,895.66	1,624.65	1,473.37	151.27	10.740	
9,350.00	5,350.00	5,360.17	5,350.00	47.87	103.95	-90.000	407.97	2,895.66	1,637.76	1,485.98	151.79	10.790	
9,400.00	5,350.00	5,360.17	5,350.00	48.38	103.95	-90.000	407.97	2,895.66	1,652.29	1,499.99	152.30	10.849	
9,450.00	5,350.00	5,360.17	5,350.00	48.90	103.95	-90.000	407.97	2,895.66	1,668.19	1,515.38	152.81	10.917	
9,500.00	5,350.00	5,360.17	5,350.00	49.41	103.95	-90.000	407.97	2,895.66	1,685.43	1,532.10	153.33	10.992	
9,550.00	5,350.00	5,360.17	5,350.00	49.93	103.95	-90.000	407.97	2,895.66	1,703.95	1,550.11	153.85	11.076	
9,600.00	5,350.00	5,360.17	5,350.00	50.45	103.95	-90.000	407.97	2,895.66	1,723.73	1,569.37	154.36	11.167	
9,650.00	5,350.00	5,360.17	5,350.00	50.97	103.95	-90.000	407.97	2,895.66	1,744.72	1,589.84	154.88	11.265	
9,700.00	5,350.00	5,360.17	5,350.00	51.48	103.95	-90.000	407.97	2,895.66	1,766.88	1,611.47	155.40	11.370	
9,750.00	5,350.00	5,360.17	5,350.00	52.01	103.95	-90.000	407.97	2,895.66	1,790.15	1,634.23	155.92	11.481	
9,800.00	5,350.00	5,360.17	5,350.00	52.53	103.95	-90.000	407.97	2,895.66	1,814.51	1,658.07	156.44	11.599	
9,850.00	5,350.00	5,360.17	5,350.00	53.05	103.95	-90.000	407.97	2,895.66	1,839.90	1,682.94	156.97	11.722	
9,900.00	5,350.00	5,360.17	5,350.00	53.57	103.95	-90.000	407.97	2,895.66	1,866.29	1,708.80	157.49	11.850	
9,950.00	5,350.00	5,360.17	5,350.00	54.10	103.95	-90.000	407.97	2,895.66	1,893.63	1,735.62	158.01	11.984	
10,000.00	5,350.00	5,360.17	5,350.00	54.62	103.95	-90.000	407.97	2,895.66	1,921.88	1,763.34	158.54	12.123	
10,050.00	5,350.00	5,360.17	5,350.00	55.15	103.95	-90.000	407.97	2,895.66	1,951.01	1,791.94	159.06	12.266	
10,100.00	5,350.00	5,360.17	5,350.00	55.67	103.95	-90.000	407.97	2,895.66	1,980.97	1,821.38	159.59	12.413	
10,150.00	5,350.00	5,360.17	5,350.00	56.20	103.95	-90.000	407.97	2,895.66	2,011.72	1,851.60	160.12	12.564	
10,200.00	5,350.00	5,360.17	5,350.00	56.73	103.95	-90.000	407.97	2,895.66	2,043.24	1,882.59	160.64	12.719	
10,250.00	5,350.00	5,360.17	5,350.00	57.26	103.95	-90.000	407.97	2,895.66	2,075.48	1,914.31	161.17	12.877	
10,300.00	5,350.00	5,360.17	5,350.00	57.79	103.95	-90.000	407.97	2,895.66	2,108.42	1,946.71	161.70	13.039	
10,350.00	5,350.00	5,360.17	5,350.00	58.32	103.95	-90.000	407.97	2,895.66	2,142.01	1,979.78	162.23	13.203	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1											Offset Site Error: 0.00 usft		
Survey Program: 343-INC-ONLY											Offset Well Error: 0.00 usft		
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.00	5,350.00	5,360.17	5,350.00	58.85	103.95	-90.000	407.97	2,895.66	2,176.24	2,013.48	162.76	13.371	
10,450.00	5,350.00	5,360.17	5,350.00	59.38	103.95	-90.000	407.97	2,895.66	2,211.07	2,047.77	163.29	13.540	
10,500.00	5,350.00	5,360.17	5,350.00	59.91	103.95	-90.000	407.97	2,895.66	2,246.47	2,082.64	163.82	13.713	
10,550.00	5,350.00	5,360.17	5,350.00	60.44	103.95	-90.000	407.97	2,895.66	2,282.41	2,118.05	164.36	13.887	
10,600.00	5,350.00	5,360.17	5,350.00	60.97	103.95	-90.000	407.97	2,895.66	2,318.88	2,153.99	164.89	14.063	
10,650.00	5,350.00	5,360.17	5,350.00	61.51	103.95	-90.000	407.97	2,895.66	2,355.84	2,190.42	165.42	14.241	
10,700.00	5,350.00	5,360.17	5,350.00	62.04	103.95	-90.000	407.97	2,895.66	2,393.28	2,227.32	165.96	14.421	
10,750.00	5,350.00	5,360.17	5,350.00	62.58	103.95	-90.000	407.97	2,895.66	2,431.17	2,264.68	166.49	14.602	
10,800.00	5,350.00	5,360.17	5,350.00	63.11	103.95	-90.000	407.97	2,895.66	2,469.49	2,302.47	167.03	14.785	
10,850.00	5,350.00	5,360.17	5,350.00	63.65	103.95	-90.000	407.97	2,895.66	2,508.22	2,340.66	167.56	14.969	
10,900.00	5,350.00	5,360.17	5,350.00	64.18	103.95	-90.000	407.97	2,895.66	2,547.35	2,379.25	168.10	15.154	
10,950.00	5,350.00	5,360.17	5,350.00	64.72	103.95	-90.000	407.97	2,895.66	2,586.85	2,418.21	168.63	15.340	
11,000.00	5,350.00	5,360.17	5,350.00	65.25	103.95	-90.000	407.97	2,895.66	2,626.70	2,457.53	169.17	15.527	
11,050.00	5,350.00	5,360.17	5,350.00	65.79	103.95	-90.000	407.97	2,895.66	2,666.90	2,497.20	169.71	15.715	
11,100.00	5,350.00	5,360.17	5,350.00	66.33	103.95	-90.000	407.97	2,895.66	2,707.43	2,537.18	170.25	15.903	
11,150.00	5,350.00	5,360.17	5,350.00	66.87	103.95	-90.000	407.97	2,895.66	2,748.27	2,577.48	170.78	16.092	
11,165.49	5,350.00	5,360.17	5,350.00	67.03	103.95	-90.000	407.97	2,895.66	2,760.98	2,590.03	170.95	16.151	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 313-INC-ONLY												Offset Well Error:	0.00 usft
OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,900.00	5,333.99	5,335.22	5,333.99	21.52	108.62	-17.997	-938.24	2,889.71	2,994.39	2,947.28	47.10	63.573	
5,950.00	5,343.59	5,344.82	5,343.59	21.56	108.82	-27.469	-938.24	2,889.71	2,945.48	2,886.16	59.31	49.659	
6,000.00	5,348.88	5,350.12	5,348.88	21.60	108.92	-51.655	-938.24	2,889.71	2,895.93	2,796.58	99.35	29.149	
6,050.00	5,350.00	5,351.23	5,350.00	21.64	108.95	-90.000	-938.24	2,889.71	2,846.11	2,716.33	129.78	21.930	
6,100.00	5,350.00	5,351.23	5,350.00	21.69	108.95	-90.000	-938.24	2,889.71	2,796.27	2,666.32	129.95	21.517	
6,150.00	5,350.00	5,351.23	5,350.00	21.77	108.95	-90.000	-938.24	2,889.71	2,746.44	2,616.29	130.15	21.102	
6,200.00	5,350.00	5,351.23	5,350.00	21.87	108.95	-90.000	-938.24	2,889.71	2,696.61	2,566.26	130.35	20.688	
6,250.00	5,350.00	5,351.23	5,350.00	21.99	108.95	-90.000	-938.24	2,889.71	2,646.80	2,516.22	130.57	20.271	
6,300.00	5,350.00	5,351.23	5,350.00	22.14	108.95	-90.000	-938.24	2,889.71	2,596.98	2,466.19	130.80	19.855	
6,350.00	5,350.00	5,351.23	5,350.00	22.32	108.95	-90.000	-938.24	2,889.71	2,547.18	2,416.14	131.04	19.438	
6,400.00	5,350.00	5,351.23	5,350.00	22.51	108.95	-90.000	-938.24	2,889.71	2,497.38	2,366.10	131.29	19.022	
6,450.00	5,350.00	5,351.23	5,350.00	22.74	108.95	-90.000	-938.24	2,889.71	2,447.60	2,316.04	131.56	18.605	
6,500.00	5,350.00	5,351.23	5,350.00	22.98	108.95	-90.000	-938.24	2,889.71	2,397.82	2,265.99	131.83	18.189	
6,550.00	5,350.00	5,351.23	5,350.00	23.24	108.95	-90.000	-938.24	2,889.71	2,348.05	2,215.93	132.12	17.772	
6,600.00	5,350.00	5,351.23	5,350.00	23.52	108.95	-90.000	-938.24	2,889.71	2,298.29	2,165.88	132.41	17.357	
6,650.00	5,350.00	5,351.23	5,350.00	23.81	108.95	-90.000	-938.24	2,889.71	2,248.54	2,115.82	132.72	16.942	
6,700.00	5,350.00	5,351.23	5,350.00	24.11	108.95	-90.000	-938.24	2,889.71	2,198.80	2,065.77	133.03	16.529	
6,750.00	5,350.00	5,351.23	5,350.00	24.43	108.95	-90.000	-938.24	2,889.71	2,149.08	2,015.72	133.36	16.115	
6,800.00	5,350.00	5,351.23	5,350.00	24.75	108.95	-90.000	-938.24	2,889.71	2,099.37	1,965.68	133.69	15.704	
6,850.00	5,350.00	5,351.23	5,350.00	25.09	108.95	-90.000	-938.24	2,889.71	2,049.67	1,915.64	134.03	15.293	
6,900.00	5,350.00	5,351.23	5,350.00	25.43	108.95	-90.000	-938.24	2,889.71	1,999.99	1,865.61	134.37	14.884	
6,950.00	5,350.00	5,351.23	5,350.00	25.79	108.95	-90.000	-938.24	2,889.71	1,950.32	1,815.59	134.73	14.475	
7,000.00	5,350.00	5,351.23	5,350.00	26.15	108.95	-90.000	-938.24	2,889.71	1,900.67	1,765.58	135.09	14.069	
7,050.00	5,350.00	5,351.23	5,350.00	26.52	108.95	-90.000	-938.24	2,889.71	1,851.04	1,715.57	135.47	13.664	
7,100.00	5,350.00	5,351.23	5,350.00	26.89	108.95	-90.000	-938.24	2,889.71	1,801.43	1,665.59	135.84	13.261	
7,150.00	5,350.00	5,351.23	5,350.00	27.28	108.95	-90.000	-938.24	2,889.71	1,751.84	1,615.62	136.23	12.860	
7,200.00	5,350.00	5,351.23	5,350.00	27.67	108.95	-90.000	-938.24	2,889.71	1,702.28	1,565.67	136.61	12.460	
7,250.00	5,350.00	5,351.23	5,350.00	28.07	108.95	-90.000	-938.24	2,889.71	1,652.74	1,515.73	137.01	12.063	
7,300.00	5,350.00	5,351.23	5,350.00	28.47	108.95	-90.000	-938.24	2,889.71	1,603.23	1,465.82	137.41	11.667	
7,350.00	5,350.00	5,351.23	5,350.00	28.88	108.95	-90.000	-938.24	2,889.71	1,553.76	1,415.94	137.82	11.274	
7,400.00	5,350.00	5,351.23	5,350.00	29.29	108.95	-90.000	-938.24	2,889.71	1,504.32	1,366.08	138.23	10.883	
7,450.00	5,350.00	5,351.23	5,350.00	29.71	108.95	-90.000	-938.24	2,889.71	1,454.91	1,316.26	138.65	10.493	
7,500.00	5,350.00	5,351.23	5,350.00	30.13	108.95	-90.000	-938.24	2,889.71	1,405.55	1,266.48	139.07	10.107	
7,550.00	5,350.00	5,351.23	5,350.00	30.56	108.95	-90.000	-938.24	2,889.71	1,356.23	1,216.74	139.50	9.722	
7,600.00	5,350.00	5,351.23	5,350.00	30.99	108.95	-90.000	-938.24	2,889.71	1,306.97	1,167.04	139.93	9.340	
7,650.00	5,350.00	5,351.23	5,350.00	31.43	108.95	-90.000	-938.24	2,889.71	1,257.76	1,117.40	140.36	8.961	
7,700.00	5,350.00	5,351.23	5,350.00	31.87	108.95	-90.000	-938.24	2,889.71	1,208.62	1,067.83	140.80	8.584	
7,750.00	5,350.00	5,351.23	5,350.00	32.31	108.95	-90.000	-938.24	2,889.71	1,159.56	1,018.31	141.24	8.210	
7,800.00	5,350.00	5,351.23	5,350.00	32.76	108.95	-90.000	-938.24	2,889.71	1,110.57	968.89	141.69	7.838	
7,850.00	5,350.00	5,351.23	5,350.00	33.21	108.95	-90.000	-938.24	2,889.71	1,061.69	919.55	142.14	7.469	
7,900.00	5,350.00	5,351.23	5,350.00	33.66	108.95	-90.000	-938.24	2,889.71	1,012.91	870.31	142.59	7.104	
7,950.00	5,350.00	5,351.23	5,350.00	34.12	108.95	-90.000	-938.24	2,889.71	964.25	821.20	143.05	6.741	
8,000.00	5,350.00	5,351.23	5,350.00	34.58	108.95	-90.000	-938.24	2,889.71	915.74	772.23	143.51	6.381	
8,050.00	5,350.00	5,351.23	5,350.00	35.05	108.95	-90.000	-938.24	2,889.71	867.40	723.43	143.97	6.025	
8,100.00	5,350.00	5,351.23	5,350.00	35.51	108.95	-90.000	-938.24	2,889.71	819.26	674.82	144.44	5.672	
8,150.00	5,350.00	5,351.23	5,350.00	35.98	108.95	-90.000	-938.24	2,889.71	771.35	626.45	144.91	5.323	
8,200.00	5,350.00	5,351.23	5,350.00	36.46	108.95	-90.000	-938.24	2,889.71	723.73	578.35	145.38	4.978	
8,250.00	5,350.00	5,351.23	5,350.00	36.93	108.95	-90.000	-938.24	2,889.71	676.45	530.60	145.85	4.638	
8,300.00	5,350.00	5,351.23	5,350.00	37.41	108.95	-90.000	-938.24	2,889.71	629.60	483.27	146.33	4.303	
8,350.00	5,350.00	5,351.23	5,350.00	37.89	108.95	-90.000	-938.24	2,889.71	583.26	436.45	146.81	3.973	
8,400.00	5,350.00	5,351.23	5,350.00	38.37	108.95	-90.000	-938.24	2,889.71	537.58	390.29	147.29	3.650	
8,450.00	5,350.00	5,351.23	5,350.00	38.86	108.95	-90.000	-938.24	2,889.71	492.75	344.97	147.77	3.334	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 313-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,500.00	5,350.00	5,351.23	5,350.00	39.34	108.95	-90.000	-938.24	2,889.71	449.00	300.74	148.26	3.028	
8,550.00	5,350.00	5,351.23	5,350.00	39.83	108.95	-90.000	-938.24	2,889.71	406.70	257.95	148.75	2.734	
8,600.00	5,350.00	5,351.23	5,350.00	40.32	108.95	-90.000	-938.24	2,889.71	366.34	217.10	149.24	2.455	
8,650.00	5,350.00	5,351.23	5,350.00	40.81	108.95	-90.000	-938.24	2,889.71	328.64	178.91	149.73	2.195	
8,700.00	5,350.00	5,351.23	5,350.00	41.31	108.95	-90.000	-938.24	2,889.71	294.63	144.41	150.22	1.961	
8,750.00	5,350.00	5,351.23	5,350.00	41.80	108.95	-90.000	-938.24	2,889.71	265.72	115.00	150.72	1.763	
8,800.00	5,350.00	5,351.23	5,350.00	42.30	108.95	-90.000	-938.24	2,889.71	243.74	92.53	151.21	1.612	
8,850.00	5,350.00	5,351.23	5,350.00	42.80	108.95	-90.000	-938.24	2,889.71	230.67	78.96	151.71	1.520	
8,886.98	5,350.00	5,351.23	5,350.00	43.17	108.95	-90.000	-938.24	2,889.71	227.69	75.61	152.08	1.497	Level 3, CC, ES, SF
8,900.00	5,350.00	5,351.23	5,350.00	43.30	108.95	-90.000	-938.24	2,889.71	228.06	75.85	152.21	1.498	Level 3
8,950.00	5,350.00	5,351.23	5,350.00	43.80	108.95	-90.000	-938.24	2,889.71	236.25	83.54	152.71	1.547	
9,000.00	5,350.00	5,351.23	5,350.00	44.30	108.95	-90.000	-938.24	2,889.71	254.20	100.98	153.22	1.659	
9,050.00	5,350.00	5,351.23	5,350.00	44.81	108.95	-90.000	-938.24	2,889.71	280.03	126.31	153.72	1.822	
9,100.00	5,350.00	5,351.23	5,350.00	45.32	108.95	-90.000	-938.24	2,889.71	311.80	157.57	154.23	2.022	
9,150.00	5,350.00	5,351.23	5,350.00	45.82	108.95	-90.000	-938.24	2,889.71	347.88	193.14	154.73	2.248	
9,200.00	5,350.00	5,351.23	5,350.00	46.33	108.95	-90.000	-938.24	2,889.71	387.07	231.83	155.24	2.493	
9,250.00	5,350.00	5,351.23	5,350.00	46.84	108.95	-90.000	-938.24	2,889.71	428.51	272.76	155.75	2.751	
9,300.00	5,350.00	5,351.23	5,350.00	47.35	108.95	-90.000	-938.24	2,889.71	471.62	315.36	156.26	3.018	
9,350.00	5,350.00	5,351.23	5,350.00	47.87	108.95	-90.000	-938.24	2,889.71	515.97	359.19	156.78	3.291	
9,400.00	5,350.00	5,351.23	5,350.00	48.38	108.95	-90.000	-938.24	2,889.71	561.27	403.98	157.29	3.568	
9,450.00	5,350.00	5,351.23	5,350.00	48.90	108.95	-90.000	-938.24	2,889.71	607.31	449.51	157.81	3.849	
9,500.00	5,350.00	5,351.23	5,350.00	49.41	108.95	-90.000	-938.24	2,889.71	653.94	495.62	158.32	4.130	
9,550.00	5,350.00	5,351.23	5,350.00	49.93	108.95	-90.000	-938.24	2,889.71	701.02	542.19	158.84	4.413	
9,600.00	5,350.00	5,351.23	5,350.00	50.45	108.95	-90.000	-938.24	2,889.71	748.49	589.13	159.35	4.697	
9,650.00	5,350.00	5,351.23	5,350.00	50.97	108.95	-90.000	-938.24	2,889.71	796.26	636.39	159.87	4.981	
9,700.00	5,350.00	5,351.23	5,350.00	51.48	108.95	-90.000	-938.24	2,889.71	844.30	683.90	160.39	5.264	
9,750.00	5,350.00	5,351.23	5,350.00	52.01	108.95	-90.000	-938.24	2,889.71	892.55	731.63	160.91	5.547	
9,800.00	5,350.00	5,351.23	5,350.00	52.53	108.95	-90.000	-938.24	2,889.71	940.98	779.54	161.44	5.829	
9,850.00	5,350.00	5,351.23	5,350.00	53.05	108.95	-90.000	-938.24	2,889.71	989.57	827.61	161.96	6.110	
9,900.00	5,350.00	5,351.23	5,350.00	53.57	108.95	-90.000	-938.24	2,889.71	1,038.29	875.81	162.48	6.390	
9,950.00	5,350.00	5,351.23	5,350.00	54.10	108.95	-90.000	-938.24	2,889.71	1,087.13	924.12	163.01	6.669	
10,000.00	5,350.00	5,351.23	5,350.00	54.62	108.95	-90.000	-938.24	2,889.71	1,136.07	972.54	163.53	6.947	
10,050.00	5,350.00	5,351.23	5,350.00	55.15	108.95	-90.000	-938.24	2,889.71	1,185.09	1,021.04	164.06	7.224	
10,100.00	5,350.00	5,351.23	5,350.00	55.67	108.95	-90.000	-938.24	2,889.71	1,234.20	1,069.62	164.58	7.499	
10,150.00	5,350.00	5,351.23	5,350.00	56.20	108.95	-90.000	-938.24	2,889.71	1,283.38	1,118.27	165.11	7.773	
10,200.00	5,350.00	5,351.23	5,350.00	56.73	108.95	-90.000	-938.24	2,889.71	1,332.61	1,166.98	165.64	8.045	
10,250.00	5,350.00	5,351.23	5,350.00	57.26	108.95	-90.000	-938.24	2,889.71	1,381.90	1,215.74	166.17	8.316	
10,300.00	5,350.00	5,351.23	5,350.00	57.79	108.95	-90.000	-938.24	2,889.71	1,431.24	1,264.55	166.69	8.586	
10,350.00	5,350.00	5,351.23	5,350.00	58.32	108.95	-90.000	-938.24	2,889.71	1,480.63	1,313.40	167.22	8.854	
10,400.00	5,350.00	5,351.23	5,350.00	58.85	108.95	-90.000	-938.24	2,889.71	1,530.05	1,362.30	167.75	9.121	
10,450.00	5,350.00	5,351.23	5,350.00	59.38	108.95	-90.000	-938.24	2,889.71	1,579.51	1,411.23	168.29	9.386	
10,500.00	5,350.00	5,351.23	5,350.00	59.91	108.95	-90.000	-938.24	2,889.71	1,629.01	1,460.19	168.82	9.650	
10,550.00	5,350.00	5,351.23	5,350.00	60.44	108.95	-90.000	-938.24	2,889.71	1,678.53	1,509.18	169.35	9.912	
10,600.00	5,350.00	5,351.23	5,350.00	60.97	108.95	-90.000	-938.24	2,889.71	1,728.08	1,558.20	169.88	10.172	
10,650.00	5,350.00	5,351.23	5,350.00	61.51	108.95	-90.000	-938.24	2,889.71	1,777.66	1,607.24	170.42	10.431	
10,700.00	5,350.00	5,351.23	5,350.00	62.04	108.95	-90.000	-938.24	2,889.71	1,827.26	1,656.31	170.95	10.689	
10,750.00	5,350.00	5,351.23	5,350.00	62.58	108.95	-90.000	-938.24	2,889.71	1,876.88	1,705.40	171.48	10.945	
10,800.00	5,350.00	5,351.23	5,350.00	63.11	108.95	-90.000	-938.24	2,889.71	1,926.52	1,754.50	172.02	11.200	
10,850.00	5,350.00	5,351.23	5,350.00	63.65	108.95	-90.000	-938.24	2,889.71	1,976.18	1,803.62	172.55	11.453	
10,900.00	5,350.00	5,351.23	5,350.00	64.18	108.95	-90.000	-938.24	2,889.71	2,025.85	1,852.76	173.09	11.704	
10,950.00	5,350.00	5,351.23	5,350.00	64.72	108.95	-90.000	-938.24	2,889.71	2,075.54	1,901.92	173.63	11.954	
11,000.00	5,350.00	5,351.23	5,350.00	65.25	108.95	-90.000	-938.24	2,889.71	2,125.25	1,951.09	174.16	12.203	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 313-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,050.00	5,350.00	5,351.23	5,350.00	65.79	108.95	-90.000	-938.24	2,889.71	2,174.97	2,000.27	174.70	12.450	
11,100.00	5,350.00	5,351.23	5,350.00	66.33	108.95	-90.000	-938.24	2,889.71	2,224.70	2,049.46	175.24	12.695	
11,150.00	5,350.00	5,351.23	5,350.00	66.87	108.95	-90.000	-938.24	2,889.71	2,274.44	2,098.67	175.77	12.940	
11,165.49	5,350.00	5,351.23	5,350.00	67.03	108.95	-90.000	-938.24	2,889.71	2,289.86	2,113.91	175.94	13.015	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,400.00	5,095.10	5,087.10	5,095.10	21.18	197.22	43.312	-2,895.05	1,908.04	2,986.03	2,803.31	182.72	16.342	
5,450.00	5,126.19	5,118.19	5,126.19	21.21	198.47	47.909	-2,895.05	1,908.04	2,952.99	2,766.92	186.07	15.871	
5,500.00	5,154.62	5,146.62	5,154.62	21.25	199.60	52.624	-2,895.05	1,908.04	2,919.05	2,728.29	190.75	15.303	
5,550.00	5,180.35	5,172.35	5,180.35	21.27	200.63	56.201	-2,895.05	1,908.04	2,884.45	2,689.22	195.23	14.775	
5,600.00	5,205.35	5,197.35	5,205.35	21.30	201.63	56.701	-2,895.05	1,908.04	2,849.87	2,652.93	196.94	14.471	
5,650.00	5,230.35	5,222.35	5,230.35	21.33	202.63	57.205	-2,895.05	1,908.04	2,815.54	2,616.87	198.67	14.172	
5,700.00	5,255.35	5,247.35	5,255.35	21.36	203.63	57.716	-2,895.05	1,908.04	2,781.46	2,581.04	200.41	13.879	
5,750.00	5,280.20	5,272.20	5,280.20	21.40	204.63	59.358	-2,895.05	1,908.04	2,747.57	2,544.50	203.06	13.531	
5,800.00	5,302.17	5,294.17	5,302.17	21.44	205.51	64.130	-2,895.05	1,908.04	2,712.78	2,504.03	208.75	12.995	
5,850.00	5,320.15	5,312.15	5,320.15	21.48	206.23	69.312	-2,895.05	1,908.04	2,676.97	2,461.95	215.01	12.450	
5,900.00	5,333.99	5,325.99	5,333.99	21.52	206.78	74.798	-2,895.05	1,908.04	2,640.44	2,419.57	220.87	11.955	
5,950.00	5,343.59	5,335.59	5,343.59	21.56	207.16	80.441	-2,895.05	1,908.04	2,603.52	2,378.16	225.36	11.553	
6,000.00	5,348.88	5,340.88	5,348.88	21.60	207.38	86.073	-2,895.05	1,908.04	2,566.52	2,338.70	227.82	11.266	
6,050.00	5,350.00	5,342.00	5,350.00	21.64	207.42	90.000	-2,895.05	1,908.04	2,529.76	2,301.50	228.25	11.083	
6,100.00	5,350.00	5,342.00	5,350.00	21.69	207.42	90.000	-2,895.05	1,908.04	2,493.44	2,265.01	228.43	10.916	
6,150.00	5,350.00	5,342.00	5,350.00	21.77	207.42	90.000	-2,895.05	1,908.04	2,457.60	2,228.97	228.62	10.749	
6,200.00	5,350.00	5,342.00	5,350.00	21.87	207.42	90.000	-2,895.05	1,908.04	2,422.26	2,193.44	228.82	10.586	
6,250.00	5,350.00	5,342.00	5,350.00	21.99	207.42	90.000	-2,895.05	1,908.04	2,387.45	2,158.41	229.05	10.423	
6,300.00	5,350.00	5,342.00	5,350.00	22.14	207.42	90.000	-2,895.05	1,908.04	2,353.19	2,123.92	229.27	10.264	
6,350.00	5,350.00	5,342.00	5,350.00	22.32	207.42	90.000	-2,895.05	1,908.04	2,319.49	2,089.98	229.52	10.106	
6,400.00	5,350.00	5,342.00	5,350.00	22.51	207.42	90.000	-2,895.05	1,908.04	2,286.40	2,056.63	229.76	9.951	
6,450.00	5,350.00	5,342.00	5,350.00	22.74	207.42	90.000	-2,895.05	1,908.04	2,253.92	2,023.89	230.03	9.798	
6,500.00	5,350.00	5,342.00	5,350.00	22.98	207.42	90.000	-2,895.05	1,908.04	2,222.10	1,991.80	230.30	9.649	
6,550.00	5,350.00	5,342.00	5,350.00	23.24	207.42	90.000	-2,895.05	1,908.04	2,190.96	1,960.37	230.59	9.501	
6,600.00	5,350.00	5,342.00	5,350.00	23.52	207.42	90.000	-2,895.05	1,908.04	2,160.52	1,929.64	230.88	9.358	
6,650.00	5,350.00	5,342.00	5,350.00	23.81	207.42	90.000	-2,895.05	1,908.04	2,130.83	1,899.63	231.19	9.217	
6,700.00	5,350.00	5,342.00	5,350.00	24.11	207.42	90.000	-2,895.05	1,908.04	2,101.90	1,870.40	231.50	9.079	
6,750.00	5,350.00	5,342.00	5,350.00	24.43	207.42	90.000	-2,895.05	1,908.04	2,073.78	1,841.95	231.83	8.945	
6,800.00	5,350.00	5,342.00	5,350.00	24.75	207.42	90.000	-2,895.05	1,908.04	2,046.49	1,814.33	232.16	8.815	
6,850.00	5,350.00	5,342.00	5,350.00	25.09	207.42	90.000	-2,895.05	1,908.04	2,020.07	1,787.57	232.50	8.688	
6,900.00	5,350.00	5,342.00	5,350.00	25.43	207.42	90.000	-2,895.05	1,908.04	1,994.55	1,761.71	232.85	8.566	
6,950.00	5,350.00	5,342.00	5,350.00	25.79	207.42	90.000	-2,895.05	1,908.04	1,969.98	1,736.77	233.21	8.447	
7,000.00	5,350.00	5,342.00	5,350.00	26.15	207.42	90.000	-2,895.05	1,908.04	1,946.37	1,712.81	233.57	8.333	
7,050.00	5,350.00	5,342.00	5,350.00	26.52	207.42	90.000	-2,895.05	1,908.04	1,923.78	1,689.84	233.94	8.223	
7,100.00	5,350.00	5,342.00	5,350.00	26.89	207.42	90.000	-2,895.05	1,908.04	1,902.23	1,667.92	234.31	8.118	
7,150.00	5,350.00	5,342.00	5,350.00	27.28	207.42	90.000	-2,895.05	1,908.04	1,881.77	1,647.07	234.70	8.018	
7,200.00	5,350.00	5,342.00	5,350.00	27.67	207.42	90.000	-2,895.05	1,908.04	1,862.42	1,627.34	235.09	7.922	
7,250.00	5,350.00	5,342.00	5,350.00	28.07	207.42	90.000	-2,895.05	1,908.04	1,844.23	1,608.74	235.49	7.832	
7,300.00	5,350.00	5,342.00	5,350.00	28.47	207.42	90.000	-2,895.05	1,908.04	1,827.22	1,591.34	235.89	7.746	
7,350.00	5,350.00	5,342.00	5,350.00	28.88	207.42	90.000	-2,895.05	1,908.04	1,811.44	1,575.15	236.29	7.666	
7,400.00	5,350.00	5,342.00	5,350.00	29.29	207.42	90.000	-2,895.05	1,908.04	1,796.91	1,560.20	236.70	7.591	
7,450.00	5,350.00	5,342.00	5,350.00	29.71	207.42	90.000	-2,895.05	1,908.04	1,783.66	1,546.54	237.12	7.522	
7,500.00	5,350.00	5,342.00	5,350.00	30.13	207.42	90.000	-2,895.05	1,908.04	1,771.72	1,534.18	237.54	7.459	
7,550.00	5,350.00	5,342.00	5,350.00	30.56	207.42	90.000	-2,895.05	1,908.04	1,761.13	1,523.16	237.97	7.401	
7,600.00	5,350.00	5,342.00	5,350.00	30.99	207.42	90.000	-2,895.05	1,908.04	1,751.89	1,513.49	238.40	7.349	
7,650.00	5,350.00	5,342.00	5,350.00	31.43	207.42	90.000	-2,895.05	1,908.04	1,744.05	1,505.21	238.84	7.302	
7,700.00	5,350.00	5,342.00	5,350.00	31.87	207.42	90.000	-2,895.05	1,908.04	1,737.60	1,498.33	239.27	7.262	
7,750.00	5,350.00	5,342.00	5,350.00	32.31	207.42	90.000	-2,895.05	1,908.04	1,732.58	1,492.86	239.72	7.228	
7,800.00	5,350.00	5,342.00	5,350.00	32.76	207.42	90.000	-2,895.05	1,908.04	1,728.98	1,488.82	240.16	7.199	
7,850.00	5,350.00	5,342.00	5,350.00	33.21	207.42	90.000	-2,895.05	1,908.04	1,726.83	1,486.22	240.61	7.177	
7,899.37	5,350.00	5,342.00	5,350.00	33.66	207.42	90.000	-2,895.05	1,908.04	1,726.13	1,485.06	241.06	7.161 CC	
7,900.00	5,350.00	5,342.00	5,350.00	33.66	207.42	90.000	-2,895.05	1,908.04	1,726.13	1,485.06	241.07	7.160 ES	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,950.00	5,350.00	5,342.00	5,350.00	34.12	207.42	90.000	-2,895.05	1,908.04	1,726.87	1,485.34	241.52	7.150	
8,000.00	5,350.00	5,342.00	5,350.00	34.58	207.42	90.000	-2,895.05	1,908.04	1,729.06	1,487.07	241.98	7.145 SF	
8,050.00	5,350.00	5,342.00	5,350.00	35.05	207.42	90.000	-2,895.05	1,908.04	1,732.69	1,490.24	242.45	7.147	
8,100.00	5,350.00	5,342.00	5,350.00	35.51	207.42	90.000	-2,895.05	1,908.04	1,737.75	1,494.83	242.91	7.154	
8,150.00	5,350.00	5,342.00	5,350.00	35.98	207.42	90.000	-2,895.05	1,908.04	1,744.23	1,500.84	243.38	7.167	
8,200.00	5,350.00	5,342.00	5,350.00	36.46	207.42	90.000	-2,895.05	1,908.04	1,752.11	1,508.26	243.85	7.185	
8,250.00	5,350.00	5,342.00	5,350.00	36.93	207.42	90.000	-2,895.05	1,908.04	1,761.38	1,517.05	244.33	7.209	
8,300.00	5,350.00	5,342.00	5,350.00	37.41	207.42	90.000	-2,895.05	1,908.04	1,772.01	1,527.21	244.80	7.239	
8,350.00	5,350.00	5,342.00	5,350.00	37.89	207.42	90.000	-2,895.05	1,908.04	1,783.98	1,538.70	245.28	7.273	
8,400.00	5,350.00	5,342.00	5,350.00	38.37	207.42	90.000	-2,895.05	1,908.04	1,797.26	1,551.50	245.76	7.313	
8,450.00	5,350.00	5,342.00	5,350.00	38.86	207.42	90.000	-2,895.05	1,908.04	1,811.82	1,565.58	246.25	7.358	
8,500.00	5,350.00	5,342.00	5,350.00	39.34	207.42	90.000	-2,895.05	1,908.04	1,827.64	1,580.91	246.73	7.407	
8,550.00	5,350.00	5,342.00	5,350.00	39.83	207.42	90.000	-2,895.05	1,908.04	1,844.68	1,597.46	247.22	7.462	
8,600.00	5,350.00	5,342.00	5,350.00	40.32	207.42	90.000	-2,895.05	1,908.04	1,862.90	1,615.19	247.71	7.521	
8,650.00	5,350.00	5,342.00	5,350.00	40.81	207.42	90.000	-2,895.05	1,908.04	1,882.27	1,634.07	248.20	7.584	
8,700.00	5,350.00	5,342.00	5,350.00	41.31	207.42	90.000	-2,895.05	1,908.04	1,902.77	1,654.07	248.69	7.651	
8,750.00	5,350.00	5,342.00	5,350.00	41.80	207.42	90.000	-2,895.05	1,908.04	1,924.34	1,675.15	249.19	7.722	
8,800.00	5,350.00	5,342.00	5,350.00	42.30	207.42	90.000	-2,895.05	1,908.04	1,946.96	1,697.27	249.69	7.798	
8,850.00	5,350.00	5,342.00	5,350.00	42.80	207.42	90.000	-2,895.05	1,908.04	1,970.59	1,720.40	250.19	7.877	
8,900.00	5,350.00	5,342.00	5,350.00	43.30	207.42	90.000	-2,895.05	1,908.04	1,995.19	1,744.50	250.68	7.959	
8,950.00	5,350.00	5,342.00	5,350.00	43.80	207.42	90.000	-2,895.05	1,908.04	2,020.73	1,769.54	251.19	8.045	
9,000.00	5,350.00	5,342.00	5,350.00	44.30	207.42	90.000	-2,895.05	1,908.04	2,047.17	1,795.48	251.69	8.134	
9,050.00	5,350.00	5,342.00	5,350.00	44.81	207.42	90.000	-2,895.05	1,908.04	2,074.48	1,822.28	252.20	8.226	
9,100.00	5,350.00	5,342.00	5,350.00	45.32	207.42	90.000	-2,895.05	1,908.04	2,102.62	1,849.92	252.70	8.321	
9,150.00	5,350.00	5,342.00	5,350.00	45.82	207.42	90.000	-2,895.05	1,908.04	2,131.57	1,878.36	253.21	8.418	
9,200.00	5,350.00	5,342.00	5,350.00	46.33	207.42	90.000	-2,895.05	1,908.04	2,161.29	1,907.57	253.72	8.519	
9,250.00	5,350.00	5,342.00	5,350.00	46.84	207.42	90.000	-2,895.05	1,908.04	2,191.74	1,937.51	254.23	8.621	
9,300.00	5,350.00	5,342.00	5,350.00	47.35	207.42	90.000	-2,895.05	1,908.04	2,222.90	1,968.16	254.74	8.726	
9,350.00	5,350.00	5,342.00	5,350.00	47.87	207.42	90.000	-2,895.05	1,908.04	2,254.74	1,999.49	255.25	8.833	
9,400.00	5,350.00	5,342.00	5,350.00	48.38	207.42	90.000	-2,895.05	1,908.04	2,287.23	2,031.46	255.76	8.943	
9,450.00	5,350.00	5,342.00	5,350.00	48.90	207.42	90.000	-2,895.05	1,908.04	2,320.34	2,064.06	256.28	9.054	
9,500.00	5,350.00	5,342.00	5,350.00	49.41	207.42	90.000	-2,895.05	1,908.04	2,354.05	2,097.25	256.79	9.167	
9,550.00	5,350.00	5,342.00	5,350.00	49.93	207.42	90.000	-2,895.05	1,908.04	2,388.33	2,131.01	257.31	9.282	
9,600.00	5,350.00	5,342.00	5,350.00	50.45	207.42	90.000	-2,895.05	1,908.04	2,423.15	2,165.32	257.83	9.398	
9,650.00	5,350.00	5,342.00	5,350.00	50.97	207.42	90.000	-2,895.05	1,908.04	2,458.50	2,200.15	258.35	9.516	
9,700.00	5,350.00	5,342.00	5,350.00	51.48	207.42	90.000	-2,895.05	1,908.04	2,494.35	2,235.48	258.87	9.636	
9,750.00	5,350.00	5,342.00	5,350.00	52.01	207.42	90.000	-2,895.05	1,908.04	2,530.68	2,271.29	259.39	9.756	
9,800.00	5,350.00	5,342.00	5,350.00	52.53	207.42	90.000	-2,895.05	1,908.04	2,567.47	2,307.56	259.91	9.878	
9,850.00	5,350.00	5,342.00	5,350.00	53.05	207.42	90.000	-2,895.05	1,908.04	2,604.70	2,344.27	260.43	10.001	
9,900.00	5,350.00	5,342.00	5,350.00	53.57	207.42	90.000	-2,895.05	1,908.04	2,642.35	2,381.40	260.95	10.126	
9,950.00	5,350.00	5,342.00	5,350.00	54.10	207.42	90.000	-2,895.05	1,908.04	2,680.41	2,418.93	261.48	10.251	
10,000.00	5,350.00	5,342.00	5,350.00	54.62	207.42	90.000	-2,895.05	1,908.04	2,718.85	2,456.85	262.00	10.377	
10,050.00	5,350.00	5,342.00	5,350.00	55.15	207.42	90.000	-2,895.05	1,908.04	2,757.67	2,495.14	262.53	10.504	
10,100.00	5,350.00	5,342.00	5,350.00	55.67	207.42	90.000	-2,895.05	1,908.04	2,796.84	2,533.78	263.06	10.632	
10,150.00	5,350.00	5,342.00	5,350.00	56.20	207.42	90.000	-2,895.05	1,908.04	2,836.35	2,572.76	263.58	10.761	
10,200.00	5,350.00	5,342.00	5,350.00	56.73	207.42	90.000	-2,895.05	1,908.04	2,876.18	2,612.07	264.11	10.890	
10,250.00	5,350.00	5,342.00	5,350.00	57.26	207.42	90.000	-2,895.05	1,908.04	2,916.33	2,651.69	264.64	11.020	
10,300.00	5,350.00	5,342.00	5,350.00	57.79	207.42	90.000	-2,895.05	1,908.04	2,956.78	2,691.61	265.17	11.151	
10,350.00	5,350.00	5,342.00	5,350.00	58.32	207.42	90.000	-2,895.05	1,908.04	2,997.52	2,731.82	265.70	11.282	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 245-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,050.00	5,350.00	5,366.65	5,350.00	35.05	134.24	-90.000	-247.55	4,867.49	2,960.93	2,791.65	169.27	17.492	
8,100.00	5,350.00	5,366.65	5,350.00	35.51	134.24	-90.000	-247.55	4,867.49	2,913.40	2,743.66	169.74	17.164	
8,150.00	5,350.00	5,366.65	5,350.00	35.98	134.24	-90.000	-247.55	4,867.49	2,865.96	2,695.75	170.21	16.838	
8,200.00	5,350.00	5,366.65	5,350.00	36.46	134.24	-90.000	-247.55	4,867.49	2,818.60	2,647.93	170.68	16.514	
8,250.00	5,350.00	5,366.65	5,350.00	36.93	134.24	-90.000	-247.55	4,867.49	2,771.34	2,600.19	171.15	16.192	
8,300.00	5,350.00	5,366.65	5,350.00	37.41	134.24	-90.000	-247.55	4,867.49	2,724.18	2,552.55	171.63	15.873	
8,350.00	5,350.00	5,366.65	5,350.00	37.89	134.24	-90.000	-247.55	4,867.49	2,677.12	2,505.01	172.11	15.555	
8,400.00	5,350.00	5,366.65	5,350.00	38.37	134.24	-90.000	-247.55	4,867.49	2,630.17	2,457.58	172.59	15.240	
8,450.00	5,350.00	5,366.65	5,350.00	38.86	134.24	-90.000	-247.55	4,867.49	2,583.33	2,410.26	173.07	14.926	
8,500.00	5,350.00	5,366.65	5,350.00	39.34	134.24	-90.000	-247.55	4,867.49	2,536.61	2,363.06	173.56	14.616	
8,550.00	5,350.00	5,366.65	5,350.00	39.83	134.24	-90.000	-247.55	4,867.49	2,490.02	2,315.98	174.04	14.307	
8,600.00	5,350.00	5,366.65	5,350.00	40.32	134.24	-90.000	-247.55	4,867.49	2,443.57	2,269.04	174.53	14.001	
8,650.00	5,350.00	5,366.65	5,350.00	40.81	134.24	-90.000	-247.55	4,867.49	2,397.26	2,222.23	175.03	13.697	
8,700.00	5,350.00	5,366.65	5,350.00	41.31	134.24	-90.000	-247.55	4,867.49	2,351.10	2,175.58	175.52	13.395	
8,750.00	5,350.00	5,366.65	5,350.00	41.80	134.24	-90.000	-247.55	4,867.49	2,305.10	2,129.08	176.01	13.096	
8,800.00	5,350.00	5,366.65	5,350.00	42.30	134.24	-90.000	-247.55	4,867.49	2,259.27	2,082.76	176.51	12.800	
8,850.00	5,350.00	5,366.65	5,350.00	42.80	134.24	-90.000	-247.55	4,867.49	2,213.62	2,036.61	177.01	12.506	
8,900.00	5,350.00	5,366.65	5,350.00	43.30	134.24	-90.000	-247.55	4,867.49	2,168.16	1,990.65	177.51	12.214	
8,950.00	5,350.00	5,366.65	5,350.00	43.80	134.24	-90.000	-247.55	4,867.49	2,122.91	1,944.90	178.01	11.926	
9,000.00	5,350.00	5,366.65	5,350.00	44.30	134.24	-90.000	-247.55	4,867.49	2,077.87	1,899.36	178.51	11.640	
9,050.00	5,350.00	5,366.65	5,350.00	44.81	134.24	-90.000	-247.55	4,867.49	2,033.07	1,854.05	179.02	11.357	
9,100.00	5,350.00	5,366.65	5,350.00	45.32	134.24	-90.000	-247.55	4,867.49	1,988.51	1,808.99	179.52	11.077	
9,150.00	5,350.00	5,366.65	5,350.00	45.82	134.24	-90.000	-247.55	4,867.49	1,944.22	1,764.19	180.03	10.799	
9,200.00	5,350.00	5,366.65	5,350.00	46.33	134.24	-90.000	-247.55	4,867.49	1,900.21	1,719.67	180.54	10.525	
9,250.00	5,350.00	5,366.65	5,350.00	46.84	134.24	-90.000	-247.55	4,867.49	1,856.51	1,675.46	181.05	10.254	
9,300.00	5,350.00	5,366.65	5,350.00	47.35	134.24	-90.000	-247.55	4,867.49	1,813.13	1,631.57	181.56	9.986	
9,350.00	5,350.00	5,366.65	5,350.00	47.87	134.24	-90.000	-247.55	4,867.49	1,770.10	1,588.03	182.07	9.722	
9,400.00	5,350.00	5,366.65	5,350.00	48.38	134.24	-90.000	-247.55	4,867.49	1,727.45	1,544.86	182.59	9.461	
9,450.00	5,350.00	5,366.65	5,350.00	48.90	134.24	-90.000	-247.55	4,867.49	1,685.20	1,502.09	183.10	9.204	
9,500.00	5,350.00	5,366.65	5,350.00	49.41	134.24	-90.000	-247.55	4,867.49	1,643.38	1,459.76	183.62	8.950	
9,550.00	5,350.00	5,366.65	5,350.00	49.93	134.24	-90.000	-247.55	4,867.49	1,602.03	1,417.90	184.14	8.700	
9,600.00	5,350.00	5,366.65	5,350.00	50.45	134.24	-90.000	-247.55	4,867.49	1,561.19	1,376.54	184.65	8.455	
9,650.00	5,350.00	5,366.65	5,350.00	50.97	134.24	-90.000	-247.55	4,867.49	1,520.90	1,335.73	185.17	8.213	
9,700.00	5,350.00	5,366.65	5,350.00	51.48	134.24	-90.000	-247.55	4,867.49	1,481.20	1,295.51	185.69	7.977	
9,750.00	5,350.00	5,366.65	5,350.00	52.01	134.24	-90.000	-247.55	4,867.49	1,442.14	1,255.93	186.21	7.745	
9,800.00	5,350.00	5,366.65	5,350.00	52.53	134.24	-90.000	-247.55	4,867.49	1,403.78	1,217.04	186.73	7.518	
9,850.00	5,350.00	5,366.65	5,350.00	53.05	134.24	-90.000	-247.55	4,867.49	1,366.16	1,178.91	187.26	7.296	
9,900.00	5,350.00	5,366.65	5,350.00	53.57	134.24	-90.000	-247.55	4,867.49	1,329.37	1,141.59	187.78	7.079	
9,950.00	5,350.00	5,366.65	5,350.00	54.10	134.24	-90.000	-247.55	4,867.49	1,293.46	1,105.15	188.30	6.869	
10,000.00	5,350.00	5,366.65	5,350.00	54.62	134.24	-90.000	-247.55	4,867.49	1,258.51	1,069.68	188.83	6.665	
10,050.00	5,350.00	5,366.65	5,350.00	55.15	134.24	-90.000	-247.55	4,867.49	1,224.61	1,035.25	189.35	6.467	
10,100.00	5,350.00	5,366.65	5,350.00	55.67	134.24	-90.000	-247.55	4,867.49	1,191.84	1,001.96	189.88	6.277	
10,150.00	5,350.00	5,366.65	5,350.00	56.20	134.24	-90.000	-247.55	4,867.49	1,160.30	969.89	190.41	6.094	
10,200.00	5,350.00	5,366.65	5,350.00	56.73	134.24	-90.000	-247.55	4,867.49	1,130.09	939.15	190.93	5.919	
10,250.00	5,350.00	5,366.65	5,350.00	57.26	134.24	-90.000	-247.55	4,867.49	1,101.32	909.86	191.46	5.752	
10,300.00	5,350.00	5,366.65	5,350.00	57.79	134.24	-90.000	-247.55	4,867.49	1,074.12	882.13	191.99	5.595	
10,350.00	5,350.00	5,366.65	5,350.00	58.32	134.24	-90.000	-247.55	4,867.49	1,048.59	856.07	192.52	5.447	
10,400.00	5,350.00	5,366.65	5,350.00	58.85	134.24	-90.000	-247.55	4,867.49	1,024.87	831.82	193.05	5.309	
10,450.00	5,350.00	5,366.65	5,350.00	59.38	134.24	-90.000	-247.55	4,867.49	1,003.08	809.50	193.58	5.182	
10,500.00	5,350.00	5,366.65	5,350.00	59.91	134.24	-90.000	-247.55	4,867.49	983.36	789.24	194.11	5.066	
10,550.00	5,350.00	5,366.65	5,350.00	60.44	134.24	-90.000	-247.55	4,867.49	965.82	771.17	194.65	4.962	
10,600.00	5,350.00	5,366.65	5,350.00	60.97	134.24	-90.000	-247.55	4,867.49	950.59	755.41	195.18	4.870	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 245-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,650.00	5,350.00	5,366.65	5,350.00	61.51	134.24	-90.000	-247.55	4,867.49	937.78	742.07	195.71	4.792	
10,700.00	5,350.00	5,366.65	5,350.00	62.04	134.24	-90.000	-247.55	4,867.49	927.49	731.25	196.25	4.726	
10,750.00	5,350.00	5,366.65	5,350.00	62.58	134.24	-90.000	-247.55	4,867.49	919.82	723.03	196.78	4.674	
10,800.00	5,350.00	5,366.65	5,350.00	63.11	134.24	-90.000	-247.55	4,867.49	914.81	717.49	197.32	4.636	
10,850.00	5,350.00	5,366.65	5,350.00	63.65	134.24	-90.000	-247.55	4,867.49	912.52	714.67	197.85	4.612	
10,866.86	5,350.00	5,366.65	5,350.00	63.83	134.24	-90.000	-247.55	4,867.49	912.36	714.33	198.03	4.607	CC, ES
10,900.00	5,350.00	5,366.65	5,350.00	64.18	134.24	-90.000	-247.55	4,867.49	912.96	714.58	198.39	4.602	SF
10,950.00	5,350.00	5,366.65	5,350.00	64.72	134.24	-90.000	-247.55	4,867.49	916.14	717.22	198.92	4.606	
11,000.00	5,350.00	5,366.65	5,350.00	65.25	134.24	-90.000	-247.55	4,867.49	922.03	722.57	199.46	4.623	
11,050.00	5,350.00	5,366.65	5,350.00	65.79	134.24	-90.000	-247.55	4,867.49	930.56	730.57	200.00	4.653	
11,100.00	5,350.00	5,366.65	5,350.00	66.33	134.24	-90.000	-247.55	4,867.49	941.68	741.15	200.54	4.696	
11,150.00	5,350.00	5,366.65	5,350.00	66.87	134.24	-90.000	-247.55	4,867.49	955.29	754.22	201.07	4.751	
11,165.49	5,350.00	5,366.65	5,350.00	67.03	134.24	-90.000	-247.55	4,867.49	959.99	758.76	201.24	4.770	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 236-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,700.00	5,350.00	5,310.00	5,291.74	31.87	110.98	-87.878	410.70	4,204.79	2,959.29	2,816.70	142.59	20.754	
7,750.00	5,350.00	5,310.00	5,291.74	32.31	110.98	-87.878	410.70	4,204.79	2,917.06	2,774.03	143.04	20.394	
7,800.00	5,350.00	5,310.00	5,291.74	32.76	110.98	-87.878	410.70	4,204.79	2,875.09	2,731.61	143.48	20.038	
7,850.00	5,350.00	5,310.00	5,291.74	33.21	110.98	-87.878	410.70	4,204.79	2,833.38	2,689.44	143.93	19.685	
7,900.00	5,350.00	5,310.00	5,291.74	33.66	110.98	-87.878	410.70	4,204.79	2,791.94	2,647.55	144.39	19.337	
7,950.00	5,350.00	5,310.00	5,291.74	34.12	110.98	-87.878	410.70	4,204.79	2,750.78	2,605.94	144.85	18.991	
8,000.00	5,350.00	5,310.00	5,291.74	34.58	110.98	-87.878	410.70	4,204.79	2,709.92	2,564.62	145.31	18.650	
8,050.00	5,350.00	5,310.00	5,291.74	35.05	110.98	-87.878	410.70	4,204.79	2,669.38	2,523.61	145.77	18.312	
8,100.00	5,350.00	5,310.00	5,291.74	35.51	110.98	-87.878	410.70	4,204.79	2,629.15	2,482.92	146.24	17.979	
8,150.00	5,350.00	5,310.00	5,291.74	35.98	110.98	-87.878	410.70	4,204.79	2,589.27	2,442.57	146.71	17.649	
8,200.00	5,350.00	5,310.00	5,291.74	36.46	110.98	-87.878	410.70	4,204.79	2,549.75	2,402.57	147.18	17.324	
8,250.00	5,350.00	5,310.00	5,291.74	36.93	110.98	-87.878	410.70	4,204.79	2,510.60	2,362.95	147.65	17.003	
8,300.00	5,350.00	5,310.00	5,291.74	37.41	110.98	-87.878	410.70	4,204.79	2,471.84	2,323.71	148.13	16.687	
8,350.00	5,350.00	5,310.00	5,291.74	37.89	110.98	-87.878	410.70	4,204.79	2,433.49	2,284.88	148.61	16.375	
8,400.00	5,350.00	5,310.00	5,291.74	38.37	110.98	-87.878	410.70	4,204.79	2,395.57	2,246.48	149.09	16.068	
8,450.00	5,350.00	5,310.00	5,291.74	38.86	110.98	-87.878	410.70	4,204.79	2,358.10	2,208.53	149.58	15.765	
8,500.00	5,350.00	5,310.00	5,291.74	39.34	110.98	-87.878	410.70	4,204.79	2,321.10	2,171.04	150.06	15.468	
8,550.00	5,350.00	5,310.00	5,291.74	39.83	110.98	-87.878	410.70	4,204.79	2,284.60	2,134.05	150.55	15.175	
8,600.00	5,350.00	5,310.00	5,291.74	40.32	110.98	-87.878	410.70	4,204.79	2,248.62	2,097.58	151.04	14.888	
8,650.00	5,350.00	5,310.00	5,291.74	40.81	110.98	-87.878	410.70	4,204.79	2,213.18	2,061.65	151.53	14.605	
8,700.00	5,350.00	5,310.00	5,291.74	41.31	110.98	-87.878	410.70	4,204.79	2,178.32	2,026.29	152.03	14.329	
8,750.00	5,350.00	5,310.00	5,291.74	41.80	110.98	-87.878	410.70	4,204.79	2,144.05	1,991.53	152.52	14.057	
8,800.00	5,350.00	5,310.00	5,291.74	42.30	110.98	-87.878	410.70	4,204.79	2,110.41	1,957.39	153.02	13.792	
8,850.00	5,350.00	5,310.00	5,291.74	42.80	110.98	-87.878	410.70	4,204.79	2,077.43	1,923.91	153.52	13.532	
8,900.00	5,350.00	5,310.00	5,291.74	43.30	110.98	-87.878	410.70	4,204.79	2,045.14	1,891.12	154.02	13.279	
8,950.00	5,350.00	5,310.00	5,291.74	43.80	110.98	-87.878	410.70	4,204.79	2,013.57	1,859.05	154.52	13.031	
9,000.00	5,350.00	5,310.00	5,291.74	44.30	110.98	-87.878	410.70	4,204.79	1,982.77	1,827.74	155.02	12.790	
9,050.00	5,350.00	5,310.00	5,291.74	44.81	110.98	-87.878	410.70	4,204.79	1,952.75	1,797.22	155.53	12.555	
9,100.00	5,350.00	5,310.00	5,291.74	45.32	110.98	-87.878	410.70	4,204.79	1,923.57	1,767.54	156.04	12.328	
9,150.00	5,350.00	5,310.00	5,291.74	45.82	110.98	-87.878	410.70	4,204.79	1,895.26	1,738.72	156.54	12.107	
9,200.00	5,350.00	5,310.00	5,291.74	46.33	110.98	-87.878	410.70	4,204.79	1,867.86	1,710.81	157.05	11.893	
9,250.00	5,350.00	5,310.00	5,291.74	46.84	110.98	-87.878	410.70	4,204.79	1,841.41	1,683.84	157.56	11.687	
9,300.00	5,350.00	5,310.00	5,291.74	47.35	110.98	-87.878	410.70	4,204.79	1,815.95	1,657.87	158.08	11.488	
9,350.00	5,350.00	5,310.00	5,291.74	47.87	110.98	-87.878	410.70	4,204.79	1,791.52	1,632.93	158.59	11.297	
9,400.00	5,350.00	5,310.00	5,291.74	48.38	110.98	-87.878	410.70	4,204.79	1,768.17	1,609.07	159.10	11.113	
9,450.00	5,350.00	5,310.00	5,291.74	48.90	110.98	-87.878	410.70	4,204.79	1,745.94	1,586.33	159.62	10.938	
9,500.00	5,350.00	5,310.00	5,291.74	49.41	110.98	-87.878	410.70	4,204.79	1,724.88	1,564.75	160.13	10.772	
9,550.00	5,350.00	5,310.00	5,291.74	49.93	110.98	-87.878	410.70	4,204.79	1,705.02	1,544.37	160.65	10.613	
9,600.00	5,350.00	5,310.00	5,291.74	50.45	110.98	-87.878	410.70	4,204.79	1,686.41	1,525.24	161.17	10.464	
9,650.00	5,350.00	5,310.00	5,291.74	50.97	110.98	-87.878	410.70	4,204.79	1,669.09	1,507.40	161.69	10.323	
9,700.00	5,350.00	5,310.00	5,291.74	51.48	110.98	-87.878	410.70	4,204.79	1,653.10	1,490.89	162.21	10.191	
9,750.00	5,350.00	5,310.00	5,291.74	52.01	110.98	-87.878	410.70	4,204.79	1,638.48	1,475.75	162.73	10.069	
9,800.00	5,350.00	5,310.00	5,291.74	52.53	110.98	-87.878	410.70	4,204.79	1,625.27	1,462.02	163.25	9.956	
9,850.00	5,350.00	5,310.00	5,291.74	53.05	110.98	-87.878	410.70	4,204.79	1,613.50	1,449.73	163.77	9.852	
9,900.00	5,350.00	5,310.00	5,291.74	53.57	110.98	-87.878	410.70	4,204.79	1,603.21	1,438.91	164.30	9.758	
9,950.00	5,350.00	5,310.00	5,291.74	54.10	110.98	-87.878	410.70	4,204.79	1,594.42	1,429.59	164.82	9.674	
10,000.00	5,350.00	5,310.00	5,291.74	54.62	110.98	-87.878	410.70	4,204.79	1,587.15	1,421.80	165.35	9.599	
10,050.00	5,350.00	5,310.00	5,291.74	55.15	110.98	-87.878	410.70	4,204.79	1,581.43	1,415.56	165.87	9.534	
10,100.00	5,350.00	5,310.00	5,291.74	55.67	110.98	-87.878	410.70	4,204.79	1,577.28	1,410.88	166.40	9.479	
10,150.00	5,350.00	5,310.00	5,291.74	56.20	110.98	-87.878	410.70	4,204.79	1,574.71	1,407.78	166.93	9.434	
10,200.00	5,350.00	5,310.00	5,291.74	56.73	110.98	-87.878	410.70	4,204.79	1,573.72	1,406.26	167.45	9.398	
10,206.16	5,350.00	5,310.00	5,291.74	56.79	110.98	-87.878	410.70	4,204.79	1,573.70	1,406.18	167.52	9.394 CC, ES	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design OCHO_TESORO OFFSETS - W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 236-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,250.00	5,350.00	5,310.00	5,291.74	57.26	110.98	-87.878	410.70	4,204.79	1,574.31	1,406.33	167.98	9.372	
10,300.00	5,350.00	5,310.00	5,291.74	57.79	110.98	-87.878	410.70	4,204.79	1,576.50	1,407.99	168.51	9.355	
10,350.00	5,350.00	5,310.00	5,291.74	58.32	110.98	-87.878	410.70	4,204.79	1,580.26	1,411.22	169.04	9.348 SF	
10,400.00	5,350.00	5,310.00	5,291.74	58.85	110.98	-87.878	410.70	4,204.79	1,585.60	1,416.02	169.57	9.351	
10,450.00	5,350.00	5,310.00	5,291.74	59.38	110.98	-87.878	410.70	4,204.79	1,592.48	1,422.38	170.10	9.362	
10,500.00	5,350.00	5,310.00	5,291.74	59.91	110.98	-87.878	410.70	4,204.79	1,600.90	1,430.26	170.64	9.382	
10,550.00	5,350.00	5,310.00	5,291.74	60.44	110.98	-87.878	410.70	4,204.79	1,610.83	1,439.66	171.17	9.411	
10,600.00	5,350.00	5,310.00	5,291.74	60.97	110.98	-87.878	410.70	4,204.79	1,622.24	1,450.54	171.70	9.448	
10,650.00	5,350.00	5,310.00	5,291.74	61.51	110.98	-87.878	410.70	4,204.79	1,635.10	1,462.86	172.24	9.493	
10,700.00	5,350.00	5,310.00	5,291.74	62.04	110.98	-87.878	410.70	4,204.79	1,649.37	1,476.60	172.77	9.547	
10,750.00	5,350.00	5,310.00	5,291.74	62.58	110.98	-87.878	410.70	4,204.79	1,665.02	1,491.72	173.30	9.608	
10,800.00	5,350.00	5,310.00	5,291.74	63.11	110.98	-87.878	410.70	4,204.79	1,682.02	1,508.18	173.84	9.676	
10,850.00	5,350.00	5,310.00	5,291.74	63.65	110.98	-87.878	410.70	4,204.79	1,700.32	1,525.94	174.37	9.751	
10,900.00	5,350.00	5,310.00	5,291.74	64.18	110.98	-87.878	410.70	4,204.79	1,719.87	1,544.96	174.91	9.833	
10,950.00	5,350.00	5,310.00	5,291.74	64.72	110.98	-87.878	410.70	4,204.79	1,740.64	1,565.20	175.45	9.921	
11,000.00	5,350.00	5,310.00	5,291.74	65.25	110.98	-87.878	410.70	4,204.79	1,762.59	1,586.61	175.98	10.016	
11,050.00	5,350.00	5,310.00	5,291.74	65.79	110.98	-87.878	410.70	4,204.79	1,785.67	1,609.15	176.52	10.116	
11,100.00	5,350.00	5,310.00	5,291.74	66.33	110.98	-87.878	410.70	4,204.79	1,809.83	1,632.77	177.06	10.222	
11,150.00	5,350.00	5,310.00	5,291.74	66.87	110.98	-87.878	410.70	4,204.79	1,835.04	1,657.44	177.60	10.333	
11,165.49	5,350.00	5,310.00	5,291.74	67.03	110.98	-87.878	410.70	4,204.79	1,843.06	1,665.29	177.76	10.368	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	0.000	40.00	0.00	40.00				
50.00	50.00	50.00	50.00	0.05	0.07	0.000	40.00	0.00	40.00	39.87	0.13	318.814	
100.00	100.00	100.00	100.00	0.14	0.14	0.000	40.00	0.00	40.00	39.71	0.29	139.481	
150.00	150.00	150.00	150.00	0.32	0.32	0.000	40.00	0.00	40.00	39.35	0.65	61.992	
200.00	200.00	200.00	200.00	0.50	0.50	0.000	40.00	0.00	40.00	39.00	1.00	39.852	
250.00	250.00	250.00	250.00	0.68	0.68	0.000	40.00	0.00	40.00	38.64	1.36	29.364	
300.00	300.00	300.00	300.00	0.86	0.86	0.000	40.00	0.00	40.00	38.28	1.72	23.247 CC, ES	
350.00	350.00	349.89	349.89	1.03	1.04	143.057	40.07	-0.43	40.42	38.34	2.07	19.505	
400.00	399.98	399.76	399.74	1.21	1.21	142.351	40.26	-1.72	41.67	39.24	2.43	17.170	
450.00	449.93	449.58	449.51	1.38	1.39	141.264	40.59	-3.86	43.76	40.98	2.78	15.737	
500.00	499.84	499.32	499.16	1.55	1.57	139.905	41.04	-6.85	46.72	43.59	3.13	14.907	
550.00	549.68	548.98	548.66	1.73	1.74	138.389	41.63	-10.69	50.55	47.06	3.49	14.473	
600.00	599.45	598.51	597.97	1.90	1.92	136.819	42.34	-15.36	55.27	51.42	3.85	14.356	
650.00	649.13	647.90	647.04	2.08	2.10	135.271	43.18	-20.86	60.88	56.67	4.21	14.461	
700.00	698.70	697.13	695.86	2.26	2.28	133.798	44.14	-27.17	67.38	62.81	4.57	14.752	
750.00	748.15	746.17	744.36	2.44	2.45	132.429	45.22	-34.28	74.77	69.85	4.93	15.174	
800.00	797.47	795.00	792.54	2.62	2.63	131.177	46.42	-42.17	83.06	77.77	5.29	15.715	
850.00	846.63	843.60	840.35	2.80	2.81	130.041	47.74	-50.83	92.22	86.58	5.65	16.337	
900.00	895.62	891.96	887.75	2.99	2.99	129.016	49.18	-60.25	102.27	96.26	6.00	17.035	
950.00	944.44	940.04	934.73	3.18	3.17	128.092	50.72	-70.39	113.17	106.81	6.36	17.781	
1,000.00	993.06	987.84	981.25	3.37	3.35	127.257	52.38	-81.24	124.93	118.21	6.72	18.583	
1,050.00	1,041.46	1,035.34	1,027.29	3.56	3.54	126.500	54.13	-92.79	137.54	130.46	7.08	19.419	
1,100.00	1,089.64	1,082.87	1,073.17	3.76	3.72	125.825	56.00	-105.04	150.97	143.52	7.44	20.280	
1,150.00	1,137.58	1,130.87	1,119.47	3.96	3.91	125.408	57.91	-117.58	164.96	157.15	7.81	21.128	
1,200.00	1,185.27	1,178.73	1,165.63	4.16	4.09	125.246	59.82	-130.08	179.43	171.26	8.17	21.965	
1,250.00	1,232.68	1,226.43	1,211.63	4.36	4.28	125.282	61.71	-142.54	194.39	185.86	8.53	22.784	
1,300.00	1,279.83	1,273.97	1,257.48	4.57	4.47	125.553	63.61	-154.96	209.80	200.91	8.89	23.589	
1,350.00	1,326.92	1,321.47	1,303.30	4.78	4.66	125.973	65.50	-167.37	225.33	216.07	9.26	24.329	
1,400.00	1,374.01	1,368.97	1,349.11	4.99	4.85	126.339	67.39	-179.78	240.87	231.24	9.63	25.007	
1,450.00	1,421.10	1,416.48	1,394.93	5.20	5.04	126.661	69.28	-192.19	256.41	246.41	10.00	25.633	
1,500.00	1,468.19	1,463.98	1,440.74	5.41	5.22	126.946	71.17	-204.59	271.96	261.59	10.38	26.210	
1,550.00	1,515.28	1,511.49	1,486.56	5.63	5.41	127.200	73.06	-217.00	287.52	276.77	10.75	26.745	
1,600.00	1,562.37	1,558.99	1,532.38	5.84	5.61	127.428	74.95	-229.41	303.08	291.96	11.13	27.241	
1,650.00	1,609.46	1,606.49	1,578.19	6.06	5.80	127.633	76.84	-241.82	318.65	307.15	11.50	27.703	
1,700.00	1,656.55	1,654.00	1,624.01	6.27	5.99	127.820	78.73	-254.23	334.22	322.34	11.88	28.133	
1,750.00	1,703.64	1,701.50	1,669.82	6.49	6.18	127.990	80.62	-266.63	349.79	337.53	12.26	28.535	
1,800.00	1,750.73	1,749.00	1,715.64	6.71	6.37	128.145	82.51	-279.04	365.36	352.73	12.64	28.911	
1,850.00	1,797.82	1,796.51	1,761.45	6.93	6.56	128.288	84.40	-291.45	380.94	367.92	13.02	29.264	
1,900.00	1,844.91	1,844.01	1,807.27	7.14	6.75	128.420	86.29	-303.86	396.52	383.12	13.40	29.596	
1,950.00	1,892.00	1,891.51	1,853.08	7.36	6.94	128.541	88.18	-316.27	412.10	398.32	13.78	29.908	
2,000.00	1,939.08	1,939.02	1,898.90	7.58	7.14	128.654	90.07	-328.67	427.68	413.52	14.16	30.202	
2,050.00	1,986.17	1,986.52	1,944.71	7.80	7.33	128.759	91.96	-341.08	443.26	428.72	14.54	30.480	
2,100.00	2,033.26	2,034.03	1,990.53	8.02	7.52	128.856	93.85	-353.49	458.85	443.92	14.93	30.743	
2,150.00	2,080.35	2,081.53	2,036.35	8.24	7.71	128.948	95.74	-365.90	474.43	459.12	15.31	30.991	
2,200.00	2,127.44	2,129.03	2,082.16	8.46	7.91	129.033	97.63	-378.31	490.02	474.33	15.69	31.227	
2,250.00	2,174.53	2,176.54	2,127.98	8.68	8.10	129.113	99.52	-390.72	505.61	489.53	16.08	31.450	
2,300.00	2,221.62	2,224.04	2,173.79	8.90	8.29	129.189	101.41	-403.12	521.19	504.73	16.46	31.663	
2,350.00	2,268.71	2,271.54	2,219.61	9.12	8.48	129.260	103.30	-415.53	536.78	519.94	16.85	31.865	
2,400.00	2,315.80	2,319.05	2,265.42	9.34	8.68	129.327	105.19	-427.94	552.37	535.14	17.23	32.058	
2,450.00	2,362.89	2,366.55	2,311.24	9.56	8.87	129.390	107.08	-440.35	567.96	550.35	17.62	32.242	
2,500.00	2,409.98	2,414.05	2,357.05	9.78	9.06	129.450	108.97	-452.76	583.55	565.55	18.00	32.417	
2,550.00	2,457.07	2,461.56	2,402.87	10.00	9.26	129.507	110.86	-465.16	599.15	580.76	18.39	32.585	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,509.06	2,448.69	10.22	9.45	129.561	112.75	-477.57	614.74	595.96	18.77	32.745	
2,650.00	2,551.25	2,556.57	2,494.50	10.44	9.64	129.612	114.64	-489.98	630.33	611.17	19.16	32.899	
2,700.00	2,598.34	2,604.07	2,540.32	10.67	9.84	129.661	116.53	-502.39	645.92	626.38	19.55	33.046	
2,750.00	2,645.42	2,651.57	2,586.13	10.89	10.03	129.708	118.42	-514.80	661.52	641.58	19.93	33.187	
2,800.00	2,692.51	2,699.08	2,631.95	11.11	10.22	129.752	120.31	-527.21	677.11	656.79	20.32	33.322	
2,850.00	2,739.60	2,746.58	2,677.76	11.33	10.42	129.794	122.20	-539.61	692.70	672.00	20.71	33.452	
2,900.00	2,786.69	2,794.08	2,723.58	11.55	10.61	129.835	124.09	-552.02	708.30	687.20	21.09	33.577	
2,950.00	2,833.78	2,841.59	2,769.39	11.77	10.81	129.874	125.98	-564.43	723.89	702.41	21.48	33.697	
3,000.00	2,880.87	2,889.09	2,815.21	12.00	11.00	129.911	127.87	-576.84	739.49	717.62	21.87	33.813	
3,050.00	2,927.96	2,936.59	2,861.02	12.22	11.19	129.946	129.76	-589.25	755.08	732.83	22.26	33.925	
3,100.00	2,975.05	2,984.10	2,906.84	12.44	11.39	129.981	131.65	-601.65	770.68	748.03	22.65	34.032	
3,150.00	3,022.14	3,031.60	2,952.66	12.66	11.58	130.013	133.54	-614.06	786.27	763.24	23.03	34.136	
3,200.00	3,069.23	3,079.11	2,998.47	12.89	11.77	130.045	135.43	-626.47	801.87	778.45	23.42	34.236	
3,250.00	3,116.32	3,126.61	3,044.29	13.11	11.97	130.075	137.32	-638.88	817.47	793.66	23.81	34.332	
3,300.00	3,163.41	3,174.11	3,090.10	13.33	12.16	130.104	139.21	-651.29	833.06	808.86	24.20	34.426	
3,350.00	3,210.50	3,221.62	3,135.92	13.55	12.36	130.133	141.10	-663.70	848.66	824.07	24.59	34.516	
3,400.00	3,257.59	3,269.12	3,181.73	13.78	12.55	130.160	142.99	-676.10	864.26	839.28	24.98	34.603	
3,450.00	3,304.68	3,316.62	3,227.55	14.00	12.74	130.186	144.88	-688.51	879.85	854.49	25.37	34.688	
3,500.00	3,351.76	3,364.13	3,273.36	14.22	12.94	130.211	146.77	-700.92	895.45	869.70	25.75	34.769	
3,550.00	3,398.85	3,411.63	3,319.18	14.44	13.13	130.235	148.66	-713.33	911.05	884.90	26.14	34.849	
3,600.00	3,445.94	3,459.13	3,364.99	14.67	13.33	130.259	150.55	-725.74	926.64	900.11	26.53	34.925	
3,650.00	3,493.03	3,506.64	3,410.81	14.89	13.52	130.282	152.44	-738.14	942.24	915.32	26.92	35.000	
3,700.00	3,540.12	3,554.14	3,456.63	15.11	13.71	130.304	154.33	-750.55	957.84	930.53	27.31	35.072	
3,750.00	3,587.21	3,601.65	3,502.44	15.34	13.91	130.325	156.22	-762.96	973.44	945.74	27.70	35.142	
3,800.00	3,634.30	3,649.15	3,548.26	15.56	14.10	130.346	158.11	-775.37	989.04	960.95	28.09	35.210	
3,850.00	3,681.39	3,696.65	3,594.07	15.78	14.30	130.366	160.00	-787.78	1,004.63	976.15	28.48	35.277	
3,900.00	3,728.48	3,744.16	3,639.89	16.01	14.49	130.385	161.90	-800.19	1,020.23	991.36	28.87	35.341	
3,950.00	3,775.57	3,791.66	3,685.70	16.23	14.68	130.404	163.79	-812.59	1,035.83	1,006.57	29.26	35.403	
4,000.00	3,822.66	3,839.16	3,731.52	16.45	14.88	130.422	165.68	-825.00	1,051.43	1,021.78	29.65	35.464	
4,050.00	3,869.75	3,886.67	3,777.33	16.67	15.07	130.440	167.57	-837.41	1,067.03	1,036.99	30.04	35.523	
4,100.00	3,916.84	3,934.17	3,823.15	16.90	15.27	130.457	169.46	-849.82	1,082.62	1,052.20	30.43	35.581	
4,150.00	3,963.93	3,981.67	3,868.97	17.12	15.46	130.474	171.35	-862.23	1,098.22	1,067.41	30.82	35.637	
4,200.00	4,011.02	4,034.54	3,920.03	17.34	15.68	130.507	173.45	-875.75	1,113.78	1,082.55	31.23	35.669	
4,250.00	4,058.10	4,096.01	3,980.13	17.57	15.91	130.710	175.86	-888.40	1,128.85	1,097.20	31.65	35.665	
4,300.00	4,105.19	4,157.24	4,040.67	17.79	16.14	131.106	178.22	-897.12	1,143.37	1,111.31	32.06	35.666	
4,350.00	4,152.28	4,217.72	4,100.91	18.01	16.35	131.678	180.50	-901.91	1,157.37	1,124.93	32.44	35.675	
4,400.00	4,199.37	4,276.99	4,160.12	18.24	16.54	132.404	182.67	-902.89	1,170.93	1,138.13	32.80	35.698	
4,450.00	4,246.46	4,334.66	4,217.69	18.46	16.71	133.260	184.72	-900.32	1,184.16	1,151.02	33.13	35.738	
4,500.00	4,293.55	4,390.38	4,273.07	18.68	16.86	134.220	186.63	-894.54	1,197.16	1,163.72	33.45	35.793	
4,550.00	4,340.64	4,443.90	4,325.85	18.91	17.00	135.259	188.40	-885.95	1,210.07	1,176.32	33.74	35.861	
4,600.00	4,387.73	4,495.02	4,375.76	19.13	17.13	136.353	190.02	-875.00	1,223.00	1,188.98	34.03	35.944	
4,650.00	4,434.91	4,543.86	4,422.82	19.35	17.25	142.148	191.50	-862.06	1,236.09	1,201.81	34.28	36.063	
4,700.00	4,482.67	4,591.86	4,468.38	19.57	17.37	154.990	192.89	-847.00	1,249.30	1,214.79	34.52	36.196	
4,750.00	4,530.89	4,639.38	4,512.67	19.77	17.48	170.586	194.19	-829.87	1,262.51	1,227.74	34.77	36.311	
4,800.00	4,579.34	4,686.47	4,555.68	19.95	17.59	-171.900	195.41	-810.73	1,275.60	1,240.56	35.04	36.409	
4,850.00	4,627.79	4,733.20	4,597.37	20.12	17.70	-154.543	196.55	-789.67	1,288.43	1,253.12	35.31	36.492	
4,900.00	4,676.00	4,779.61	4,637.71	20.28	17.81	-139.374	197.61	-766.76	1,300.90	1,265.32	35.58	36.564	
4,950.00	4,723.73	4,825.74	4,676.66	20.42	17.92	-127.155	198.58	-742.07	1,312.89	1,277.04	35.84	36.628	
5,000.00	4,770.75	4,871.63	4,714.18	20.54	18.03	-117.616	199.48	-715.67	1,324.31	1,288.21	36.10	36.689	
5,050.00	4,816.83	4,917.30	4,750.22	20.66	18.14	-110.172	200.28	-687.64	1,335.06	1,298.73	36.33	36.748	
5,100.00	4,861.74	4,962.78	4,784.74	20.76	18.25	-104.287	201.01	-658.04	1,345.05	1,308.51	36.54	36.808	
5,150.00	4,905.28	5,008.08	4,817.69	20.86	18.37	-99.561	201.65	-626.96	1,354.22	1,317.49	36.73	36.868	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	4,947.22	5,053.23	4,849.02	20.94	18.48	-95.714	202.21	-594.47	1,362.49	1,325.59	36.90	36.924	
5,250.00	4,987.37	5,100.00	4,879.83	21.01	18.61	-92.536	202.70	-559.29	1,369.80	1,332.75	37.05	36.968	
5,300.00	5,025.51	5,143.10	4,906.66	21.07	18.73	-89.935	203.07	-525.57	1,376.10	1,338.91	37.19	37.005	
5,350.00	5,061.48	5,187.83	4,932.87	21.13	18.86	-87.768	203.37	-489.32	1,381.33	1,344.01	37.32	37.016	
5,400.00	5,095.10	5,232.45	4,957.29	21.18	19.00	-85.982	203.59	-451.99	1,385.46	1,348.01	37.45	36.996	
5,450.00	5,126.19	5,278.49	4,980.75	21.21	19.14	-84.522	203.73	-412.37	1,388.45	1,350.85	37.60	36.931	
5,500.00	5,154.62	5,328.30	5,005.66	21.25	19.31	-83.418	203.86	-369.23	1,390.13	1,352.34	37.79	36.785	
5,550.00	5,180.35	5,378.29	5,030.65	21.27	19.49	-82.859	204.00	-325.95	1,390.49	1,352.44	38.04	36.551	
5,600.00	5,205.35	5,428.29	5,055.65	21.30	19.68	-82.859	204.13	-282.65	1,390.49	1,352.14	38.34	36.264	
5,620.45	5,215.58	5,448.74	5,065.87	21.31	19.76	-82.859	204.18	-264.93	1,390.49	1,352.01	38.48	36.137	
5,650.00	5,230.35	5,474.85	5,078.83	21.33	19.86	-82.854	204.25	-242.26	1,390.51	1,351.85	38.66	35.968	
5,700.00	5,255.35	5,513.14	5,096.18	21.36	20.02	-82.771	204.36	-208.14	1,390.84	1,351.90	38.94	35.720	
5,750.00	5,280.20	5,550.00	5,110.69	21.40	20.17	-82.573	204.46	-174.26	1,391.59	1,352.38	39.20	35.496	
5,800.00	5,302.17	5,588.57	5,123.51	21.44	20.33	-82.312	204.57	-137.90	1,392.36	1,352.89	39.47	35.277	
5,850.00	5,320.15	5,625.96	5,133.58	21.48	20.49	-82.103	204.68	-101.89	1,393.01	1,353.26	39.75	35.046	
5,900.00	5,333.99	5,663.21	5,141.25	21.52	20.64	-81.941	204.79	-65.45	1,393.52	1,353.48	40.04	34.801	
5,950.00	5,343.59	5,700.00	5,146.49	21.56	20.79	-81.830	204.91	-29.04	1,393.88	1,353.53	40.35	34.543	
6,000.00	5,348.88	5,737.46	5,149.41	21.60	20.95	-81.766	205.02	8.30	1,394.08	1,353.41	40.68	34.272	
6,050.00	5,350.00	5,778.38	5,150.00	21.64	21.11	-81.752	205.15	49.21	1,394.13	1,353.11	41.02	33.986	
6,100.00	5,350.00	5,828.38	5,150.00	21.69	21.32	-81.752	205.30	99.21	1,394.13	1,352.73	41.40	33.671	
6,150.00	5,350.00	5,878.38	5,150.00	21.77	21.54	-81.752	205.45	149.21	1,394.13	1,352.31	41.82	33.337	
6,200.00	5,350.00	5,928.38	5,150.00	21.87	21.78	-81.752	205.60	199.21	1,394.13	1,351.88	42.25	32.998	
6,250.00	5,350.00	5,978.38	5,150.00	21.99	22.02	-81.752	205.76	249.21	1,394.13	1,351.42	42.72	32.638	
6,300.00	5,350.00	6,028.38	5,150.00	22.14	22.28	-81.752	205.91	299.21	1,394.13	1,350.94	43.19	32.276	
6,350.00	5,350.00	6,078.38	5,150.00	22.32	22.55	-81.752	206.06	349.21	1,394.14	1,350.43	43.71	31.897	
6,400.00	5,350.00	6,128.38	5,150.00	22.51	22.83	-81.752	206.22	399.21	1,394.14	1,349.90	44.23	31.519	
6,450.00	5,350.00	6,178.38	5,150.00	22.74	23.12	-81.752	206.37	449.21	1,394.14	1,349.35	44.79	31.127	
6,500.00	5,350.00	6,228.38	5,150.00	22.98	23.42	-81.752	206.52	499.21	1,394.14	1,348.78	45.36	30.737	
6,550.00	5,350.00	6,278.38	5,150.00	23.24	23.73	-81.752	206.68	549.21	1,394.14	1,348.18	45.95	30.338	
6,600.00	5,350.00	6,328.38	5,150.00	23.52	24.04	-81.752	206.83	599.21	1,394.14	1,347.58	46.56	29.942	
6,650.00	5,350.00	6,378.38	5,150.00	23.81	24.37	-81.752	206.98	649.21	1,394.14	1,346.94	47.20	29.539	
6,700.00	5,350.00	6,428.38	5,150.00	24.11	24.71	-81.752	207.13	699.21	1,394.14	1,346.30	47.84	29.141	
6,750.00	5,350.00	6,478.38	5,150.00	24.43	25.05	-81.752	207.29	749.21	1,394.14	1,345.63	48.51	28.738	
6,800.00	5,350.00	6,528.38	5,150.00	24.75	25.40	-81.752	207.44	799.21	1,394.14	1,344.95	49.19	28.342	
6,850.00	5,350.00	6,578.38	5,150.00	25.09	25.76	-81.752	207.59	849.21	1,394.14	1,344.25	49.89	27.943	
6,900.00	5,350.00	6,628.38	5,150.00	25.43	26.13	-81.752	207.75	899.21	1,394.15	1,343.54	50.60	27.551	
6,950.00	5,350.00	6,678.38	5,150.00	25.79	26.50	-81.752	207.90	949.21	1,394.15	1,342.81	51.33	27.158	
7,000.00	5,350.00	6,728.38	5,150.00	26.15	26.88	-81.752	208.05	999.20	1,394.15	1,342.07	52.07	26.773	
7,050.00	5,350.00	6,778.38	5,150.00	26.52	27.27	-81.752	208.21	1,049.20	1,394.15	1,341.32	52.83	26.389	
7,100.00	5,350.00	6,828.38	5,150.00	26.89	27.66	-81.752	208.36	1,099.20	1,394.15	1,340.55	53.60	26.012	
7,150.00	5,350.00	6,878.38	5,150.00	27.28	28.06	-81.752	208.51	1,149.20	1,394.15	1,339.77	54.38	25.638	
7,200.00	5,350.00	6,928.38	5,150.00	27.67	28.47	-81.752	208.67	1,199.20	1,394.15	1,338.98	55.17	25.271	
7,250.00	5,350.00	6,978.38	5,150.00	28.07	28.88	-81.752	208.82	1,249.20	1,394.15	1,338.18	55.97	24.907	
7,300.00	5,350.00	7,028.38	5,150.00	28.47	29.29	-81.752	208.97	1,299.20	1,394.15	1,337.37	56.79	24.551	
7,350.00	5,350.00	7,078.38	5,150.00	28.88	29.71	-81.752	209.12	1,349.20	1,394.15	1,336.54	57.61	24.199	
7,400.00	5,350.00	7,128.38	5,150.00	29.29	30.14	-81.752	209.28	1,399.20	1,394.16	1,335.71	58.44	23.855	
7,450.00	5,350.00	7,178.38	5,150.00	29.71	30.56	-81.752	209.43	1,449.20	1,394.16	1,334.87	59.29	23.515	
7,500.00	5,350.00	7,228.38	5,150.00	30.13	31.00	-81.752	209.58	1,499.20	1,394.16	1,334.02	60.14	23.182	
7,550.00	5,350.00	7,278.38	5,150.00	30.56	31.43	-81.752	209.74	1,549.20	1,394.16	1,333.16	61.00	22.854	
7,600.00	5,350.00	7,328.38	5,150.00	30.99	31.88	-81.752	209.89	1,599.20	1,394.16	1,332.29	61.87	22.534	
7,650.00	5,350.00	7,378.38	5,150.00	31.43	32.32	-81.752	210.04	1,649.20	1,394.16	1,331.41	62.75	22.218	
7,700.00	5,350.00	7,428.38	5,150.00	31.87	32.77	-81.752	210.20	1,699.20	1,394.16	1,330.53	63.63	21.910	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,750.00	5,350.00	7,478.38	5,150.00	32.31	33.22	-81.752	210.35	1,749.20	1,394.16	1,329.64	64.53	21.607	
7,800.00	5,350.00	7,528.38	5,150.00	32.76	33.68	-81.752	210.50	1,799.20	1,394.16	1,328.74	65.42	21.310	
7,850.00	5,350.00	7,578.38	5,150.00	33.21	34.14	-81.752	210.65	1,849.20	1,394.16	1,327.83	66.33	21.019	
7,900.00	5,350.00	7,628.38	5,150.00	33.66	34.60	-81.752	210.81	1,899.20	1,394.16	1,326.92	67.24	20.734	
7,950.00	5,350.00	7,678.38	5,150.00	34.12	35.06	-81.752	210.96	1,949.20	1,394.17	1,326.01	68.16	20.454	
8,000.00	5,350.00	7,728.38	5,150.00	34.58	35.53	-81.752	211.11	1,999.20	1,394.17	1,325.08	69.08	20.181	
8,050.00	5,350.00	7,778.38	5,150.00	35.05	36.00	-81.752	211.27	2,049.20	1,394.17	1,324.15	70.01	19.912	
8,100.00	5,350.00	7,828.38	5,150.00	35.51	36.47	-81.752	211.42	2,099.20	1,394.17	1,323.22	70.95	19.650	
8,150.00	5,350.00	7,878.38	5,150.00	35.98	36.95	-81.752	211.57	2,149.20	1,394.17	1,322.28	71.89	19.393	
8,200.00	5,350.00	7,928.38	5,150.00	36.46	37.43	-81.752	211.73	2,199.20	1,394.17	1,321.33	72.84	19.141	
8,250.00	5,350.00	7,978.38	5,150.00	36.93	37.91	-81.752	211.88	2,249.20	1,394.17	1,320.38	73.79	18.894	
8,300.00	5,350.00	8,028.38	5,150.00	37.41	38.39	-81.752	212.03	2,299.20	1,394.17	1,319.43	74.74	18.653	
8,350.00	5,350.00	8,078.38	5,150.00	37.89	38.88	-81.752	212.18	2,349.20	1,394.17	1,318.47	75.70	18.416	
8,400.00	5,350.00	8,128.38	5,150.00	38.37	39.36	-81.752	212.34	2,399.20	1,394.17	1,317.51	76.67	18.185	
8,450.00	5,350.00	8,178.38	5,150.00	38.86	39.85	-81.752	212.49	2,449.20	1,394.18	1,316.54	77.64	17.958	
8,500.00	5,350.00	8,228.38	5,150.00	39.34	40.34	-81.752	212.64	2,499.20	1,394.18	1,315.57	78.61	17.736	
8,550.00	5,350.00	8,278.38	5,150.00	39.83	40.84	-81.752	212.80	2,549.20	1,394.18	1,314.59	79.58	17.518	
8,600.00	5,350.00	8,328.38	5,150.00	40.32	41.33	-81.752	212.95	2,599.20	1,394.18	1,313.62	80.56	17.305	
8,650.00	5,350.00	8,378.38	5,150.00	40.81	41.83	-81.752	213.10	2,649.20	1,394.18	1,312.63	81.55	17.097	
8,700.00	5,350.00	8,428.38	5,150.00	41.31	42.33	-81.752	213.26	2,699.20	1,394.18	1,311.65	82.53	16.892	
8,750.00	5,350.00	8,478.38	5,150.00	41.80	42.83	-81.752	213.41	2,749.20	1,394.18	1,310.66	83.52	16.692	
8,800.00	5,350.00	8,528.38	5,150.00	42.30	43.33	-81.752	213.56	2,799.20	1,394.18	1,309.66	84.52	16.496	
8,850.00	5,350.00	8,578.38	5,150.00	42.80	43.83	-81.752	213.71	2,849.20	1,394.18	1,308.67	85.52	16.303	
8,900.00	5,350.00	8,628.38	5,150.00	43.30	44.33	-81.752	213.87	2,899.20	1,394.18	1,307.67	86.51	16.115	
8,950.00	5,350.00	8,678.38	5,150.00	43.80	44.84	-81.752	214.02	2,949.20	1,394.18	1,306.67	87.52	15.930	
9,000.00	5,350.00	8,728.38	5,150.00	44.30	45.35	-81.752	214.17	2,999.20	1,394.19	1,305.66	88.52	15.750	
9,050.00	5,350.00	8,778.38	5,150.00	44.81	45.86	-81.752	214.33	3,049.20	1,394.19	1,304.66	89.53	15.572	
9,100.00	5,350.00	8,828.38	5,150.00	45.32	46.37	-81.752	214.48	3,099.19	1,394.19	1,303.65	90.54	15.398	
9,150.00	5,350.00	8,878.38	5,150.00	45.82	46.88	-81.752	214.63	3,149.19	1,394.19	1,302.63	91.55	15.228	
9,200.00	5,350.00	8,928.38	5,150.00	46.33	47.39	-81.752	214.79	3,199.19	1,394.19	1,301.62	92.57	15.061	
9,250.00	5,350.00	8,978.38	5,150.00	46.84	47.90	-81.752	214.94	3,249.19	1,394.19	1,300.60	93.59	14.897	
9,300.00	5,350.00	9,028.38	5,150.00	47.35	48.42	-81.752	215.09	3,299.19	1,394.19	1,299.58	94.61	14.736	
9,350.00	5,350.00	9,078.38	5,150.00	47.87	48.93	-81.752	215.25	3,349.19	1,394.19	1,298.56	95.63	14.579	
9,400.00	5,350.00	9,128.38	5,150.00	48.38	49.45	-81.752	215.40	3,399.19	1,394.19	1,297.54	96.66	14.424	
9,450.00	5,350.00	9,178.38	5,150.00	48.90	49.97	-81.752	215.55	3,449.19	1,394.19	1,296.51	97.68	14.273	
9,500.00	5,350.00	9,228.38	5,150.00	49.41	50.48	-81.752	215.70	3,499.19	1,394.20	1,295.48	98.71	14.124	
9,550.00	5,350.00	9,278.38	5,150.00	49.93	51.00	-81.752	215.86	3,549.19	1,394.20	1,294.45	99.74	13.978	
9,600.00	5,350.00	9,328.38	5,150.00	50.45	51.52	-81.752	216.01	3,599.19	1,394.20	1,293.42	100.77	13.835	
9,650.00	5,350.00	9,378.38	5,150.00	50.97	52.05	-81.752	216.16	3,649.19	1,394.20	1,292.39	101.81	13.694	
9,700.00	5,350.00	9,428.38	5,150.00	51.48	52.57	-81.752	216.32	3,699.19	1,394.20	1,291.35	102.85	13.556	
9,750.00	5,350.00	9,478.38	5,150.00	52.01	53.09	-81.752	216.47	3,749.19	1,394.20	1,290.32	103.88	13.421	
9,800.00	5,350.00	9,528.38	5,150.00	52.53	53.62	-81.752	216.62	3,799.19	1,394.20	1,289.28	104.92	13.288	
9,850.00	5,350.00	9,578.38	5,150.00	53.05	54.14	-81.752	216.78	3,849.19	1,394.20	1,288.24	105.96	13.157	
9,900.00	5,350.00	9,628.38	5,150.00	53.57	54.67	-81.752	216.93	3,899.19	1,394.20	1,287.20	107.01	13.029	
9,950.00	5,350.00	9,678.38	5,150.00	54.10	55.19	-81.752	217.08	3,949.19	1,394.20	1,286.15	108.05	12.903	
10,000.00	5,350.00	9,728.38	5,150.00	54.62	55.72	-81.752	217.23	3,999.19	1,394.21	1,285.11	109.10	12.779	
10,050.00	5,350.00	9,778.38	5,150.00	55.15	56.25	-81.752	217.39	4,049.19	1,394.21	1,284.06	110.15	12.658	
10,100.00	5,350.00	9,828.38	5,150.00	55.67	56.77	-81.752	217.54	4,099.19	1,394.21	1,283.01	111.19	12.539	
10,150.00	5,350.00	9,878.38	5,150.00	56.20	57.30	-81.752	217.69	4,149.19	1,394.21	1,281.96	112.24	12.421	
10,200.00	5,350.00	9,928.38	5,150.00	56.73	57.83	-81.752	217.85	4,199.19	1,394.21	1,280.91	113.29	12.306	
10,250.00	5,350.00	9,978.38	5,150.00	57.26	58.36	-81.752	218.00	4,249.19	1,394.21	1,279.86	114.35	12.193	
10,300.00	5,350.00	10,028.38	5,150.00	57.79	58.90	-81.752	218.15	4,299.19	1,394.21	1,278.81	115.40	12.081	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design TESORO 20 FEDERAL COM - 70H - Wellbore #1 - PERMIT													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,350.00	5,350.00	10,078.38	5,150.00	58.32	59.43	-81.752	218.31	4,349.19	1,394.21	1,277.75	116.46	11.972		
10,400.00	5,350.00	10,128.38	5,150.00	58.85	59.96	-81.752	218.46	4,399.19	1,394.21	1,276.70	117.51	11.864		
10,450.00	5,350.00	10,178.38	5,150.00	59.38	60.49	-81.752	218.61	4,449.19	1,394.21	1,275.64	118.57	11.758		
10,500.00	5,350.00	10,228.38	5,150.00	59.91	61.03	-81.752	218.76	4,499.19	1,394.21	1,274.59	119.63	11.654		
10,550.00	5,350.00	10,278.38	5,150.00	60.44	61.56	-81.752	218.92	4,549.19	1,394.22	1,273.53	120.69	11.552		
10,600.00	5,350.00	10,328.38	5,150.00	60.97	62.09	-81.752	219.07	4,599.19	1,394.22	1,272.47	121.75	11.451		
10,650.00	5,350.00	10,378.38	5,150.00	61.51	62.63	-81.752	219.22	4,649.19	1,394.22	1,271.41	122.81	11.352		
10,700.00	5,350.00	10,428.38	5,150.00	62.04	63.16	-81.752	219.38	4,699.19	1,394.22	1,270.34	123.87	11.255		
10,750.00	5,350.00	10,478.38	5,150.00	62.58	63.70	-81.752	219.53	4,749.19	1,394.22	1,269.28	124.94	11.159		
10,800.00	5,350.00	10,528.38	5,150.00	63.11	64.24	-81.753	219.68	4,799.19	1,394.22	1,268.22	126.00	11.065		
10,850.00	5,350.00	10,578.38	5,150.00	63.65	64.77	-81.753	219.84	4,849.19	1,394.22	1,267.15	127.07	10.972		
10,900.00	5,350.00	10,628.38	5,150.00	64.18	65.31	-81.753	219.99	4,899.19	1,394.22	1,266.09	128.14	10.881		
10,950.00	5,350.00	10,678.38	5,150.00	64.72	65.85	-81.753	220.14	4,949.19	1,394.22	1,265.02	129.20	10.791		
11,000.00	5,350.00	10,728.38	5,150.00	65.25	66.39	-81.753	220.29	4,999.19	1,394.22	1,263.95	130.27	10.702		
11,050.00	5,350.00	10,778.38	5,150.00	65.79	66.92	-81.753	220.45	5,049.19	1,394.23	1,262.88	131.34	10.615		
11,100.00	5,350.00	10,828.38	5,150.00	66.33	67.46	-81.753	220.60	5,099.19	1,394.23	1,261.82	132.41	10.530		
11,150.00	5,350.00	10,878.38	5,150.00	66.87	68.00	-81.753	220.75	5,149.19	1,394.23	1,260.75	133.48	10.445		
11,154.13	5,350.00	10,882.51	5,150.00	66.91	68.05	-81.753	220.77	5,153.32	1,394.23	1,260.66	133.57	10.438		
11,165.49	5,350.00	10,893.39	5,150.00	67.03	68.16	-81.753	220.80	5,164.20	1,394.23	1,260.42	133.81	10.420 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	0.000	20.00	0.00	20.00				
50.00	50.00	50.00	50.00	0.05	0.07	0.000	20.00	0.00	20.00	19.87	0.13	159.407	
100.00	100.00	100.00	100.00	0.14	0.14	0.000	20.00	0.00	20.00	19.71	0.29	69.740	
150.00	150.00	150.00	150.00	0.32	0.32	0.000	20.00	0.00	20.00	19.35	0.65	30.996	
200.00	200.00	200.00	200.00	0.50	0.50	0.000	20.00	0.00	20.00	19.00	1.00	19.926	
250.00	250.00	250.00	250.00	0.68	0.68	0.000	20.00	0.00	20.00	18.64	1.36	14.682	
300.00	300.00	300.00	300.00	0.86	0.86	0.000	20.00	0.00	20.00	18.28	1.72	11.623 CC	
350.00	350.00	350.16	350.16	1.03	1.03	142.932	19.80	-0.39	20.15	18.08	2.07	9.733 ES	
400.00	399.98	400.31	400.29	1.21	1.21	141.853	19.20	-1.56	20.61	18.19	2.42	8.507	
450.00	449.93	450.46	450.39	1.38	1.38	140.159	18.21	-3.52	21.39	18.62	2.77	7.714	
500.00	499.84	500.58	500.42	1.55	1.56	137.988	16.81	-6.25	22.51	19.39	3.12	7.211	
550.00	549.68	550.69	550.37	1.73	1.74	135.499	15.03	-9.77	24.00	20.52	3.48	6.900	
600.00	599.45	600.78	600.23	1.90	1.91	132.850	12.84	-14.06	25.86	22.03	3.83	6.750	
650.00	649.13	650.84	649.96	2.08	2.09	130.177	10.26	-19.12	28.12	23.93	4.19	6.712	
700.00	698.70	700.86	699.56	2.26	2.27	127.586	7.29	-24.95	30.80	26.25	4.55	6.773	
750.00	748.15	750.85	748.99	2.44	2.45	125.145	3.93	-31.55	33.88	28.97	4.91	6.902	
800.00	797.47	800.79	798.25	2.62	2.63	122.894	0.19	-38.91	37.39	32.12	5.27	7.094	
850.00	846.63	850.69	847.31	2.80	2.82	120.848	-3.95	-47.02	41.31	35.67	5.64	7.328	
900.00	895.62	900.54	896.15	2.99	3.00	119.008	-8.46	-55.88	45.64	39.64	6.00	7.602	
950.00	944.44	950.33	944.76	3.18	3.19	117.362	-13.36	-65.49	50.39	44.01	6.38	7.900	
1,000.00	993.06	1,000.06	993.12	3.37	3.38	115.894	-18.63	-75.84	55.54	48.79	6.75	8.226	
1,050.00	1,041.46	1,049.74	1,041.23	3.56	3.58	114.662	-24.23	-86.85	61.10	53.97	7.13	8.567	
1,100.00	1,089.64	1,099.38	1,089.28	3.76	3.77	114.180	-29.90	-97.98	67.03	59.52	7.51	8.921	
1,150.00	1,137.58	1,148.98	1,137.29	3.96	3.96	114.379	-35.56	-109.09	73.32	65.42	7.90	9.282	
1,200.00	1,185.27	1,198.53	1,185.24	4.16	4.16	115.096	-41.21	-120.19	79.97	71.69	8.28	9.654	
1,250.00	1,232.68	1,247.99	1,233.11	4.36	4.35	116.198	-46.86	-131.28	87.02	78.35	8.67	10.038	
1,300.00	1,279.83	1,297.38	1,280.91	4.57	4.55	117.602	-52.50	-142.35	94.48	85.43	9.05	10.435	
1,350.00	1,326.92	1,346.75	1,328.69	4.78	4.75	118.965	-58.13	-153.41	102.08	92.64	9.44	10.812	
1,400.00	1,374.01	1,396.11	1,376.47	4.99	4.94	120.138	-63.76	-164.47	109.72	99.89	9.83	11.164	
1,450.00	1,421.10	1,445.48	1,424.25	5.20	5.14	121.159	-69.40	-175.53	117.41	107.19	10.22	11.491	
1,500.00	1,468.19	1,494.84	1,472.03	5.41	5.34	122.054	-75.03	-186.59	125.12	114.52	10.61	11.798	
1,550.00	1,515.28	1,544.21	1,519.81	5.63	5.53	122.845	-80.66	-197.66	132.87	121.87	11.00	12.084	
1,600.00	1,562.37	1,593.57	1,567.59	5.84	5.73	123.549	-86.30	-208.72	140.63	129.25	11.39	12.352	
1,650.00	1,609.46	1,642.94	1,615.37	6.06	5.93	124.180	-91.93	-219.78	148.41	136.64	11.78	12.603	
1,700.00	1,656.55	1,692.30	1,663.15	6.27	6.13	124.747	-97.57	-230.84	156.21	144.05	12.17	12.839	
1,750.00	1,703.64	1,741.67	1,710.93	6.49	6.33	125.261	-103.20	-241.90	164.03	151.47	12.56	13.061	
1,800.00	1,750.73	1,791.03	1,758.70	6.71	6.53	125.727	-108.83	-252.96	171.85	158.90	12.95	13.270	
1,850.00	1,797.82	1,840.40	1,806.48	6.93	6.73	126.154	-114.47	-264.03	179.69	166.34	13.34	13.467	
1,900.00	1,844.91	1,889.77	1,854.26	7.14	6.93	126.544	-120.10	-275.09	187.53	173.79	13.74	13.653	
1,950.00	1,892.00	1,939.13	1,902.04	7.36	7.13	126.903	-125.74	-286.15	195.38	181.25	14.13	13.828	
2,000.00	1,939.08	1,988.50	1,949.82	7.58	7.33	127.235	-131.37	-297.21	203.24	188.72	14.52	13.995	
2,050.00	1,986.17	2,037.86	1,997.60	7.80	7.53	127.541	-137.00	-308.27	211.10	196.19	14.92	14.153	
2,100.00	2,033.26	2,087.23	2,045.38	8.02	7.73	127.826	-142.64	-319.34	218.97	203.66	15.31	14.302	
2,150.00	2,080.35	2,136.59	2,093.16	8.24	7.93	128.091	-148.27	-330.40	226.85	211.14	15.70	14.444	
2,200.00	2,127.44	2,185.96	2,140.94	8.46	8.13	128.338	-153.90	-341.46	234.73	218.63	16.10	14.580	
2,250.00	2,174.53	2,235.32	2,188.72	8.68	8.33	128.570	-159.54	-352.52	242.61	226.12	16.49	14.709	
2,300.00	2,221.62	2,284.69	2,236.50	8.90	8.53	128.786	-165.17	-363.58	250.50	233.61	16.89	14.831	
2,350.00	2,268.71	2,334.05	2,284.27	9.12	8.73	128.989	-170.81	-374.65	258.39	241.10	17.29	14.949	
2,400.00	2,315.80	2,383.42	2,332.05	9.34	8.93	129.181	-176.44	-385.71	266.28	248.60	17.68	15.061	
2,450.00	2,362.89	2,432.79	2,379.83	9.56	9.13	129.361	-182.07	-396.77	274.18	256.10	18.08	15.168	
2,500.00	2,409.98	2,482.15	2,427.61	9.78	9.33	129.531	-187.71	-407.83	282.08	263.60	18.47	15.270	
2,550.00	2,457.07	2,531.52	2,475.39	10.00	9.53	129.692	-193.34	-418.89	289.98	271.11	18.87	15.368	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.00	2,504.16	2,580.88	2,523.17	10.22	9.73	129.845	-198.97	-429.95	297.88	278.61	19.27	15.462	
2,650.00	2,551.25	2,630.25	2,570.95	10.44	9.93	129.989	-204.61	-441.02	305.78	286.12	19.66	15.552	
2,700.00	2,598.34	2,679.61	2,618.73	10.67	10.13	130.127	-210.24	-452.08	313.69	293.63	20.06	15.639	
2,750.00	2,645.42	2,728.98	2,666.51	10.89	10.33	130.257	-215.88	-463.14	321.60	301.14	20.46	15.722	
2,800.00	2,692.51	2,778.34	2,714.29	11.11	10.53	130.381	-221.51	-474.20	329.51	308.66	20.85	15.802	
2,850.00	2,739.60	2,827.71	2,762.07	11.33	10.74	130.500	-227.14	-485.26	337.42	316.17	21.25	15.879	
2,900.00	2,786.69	2,877.07	2,809.85	11.55	10.94	130.613	-232.78	-496.33	345.33	323.69	21.65	15.953	
2,950.00	2,833.78	2,926.44	2,857.62	11.77	11.14	130.721	-238.41	-507.39	353.25	331.20	22.04	16.025	
3,000.00	2,880.87	2,975.81	2,905.40	12.00	11.34	130.824	-244.04	-518.45	361.16	338.72	22.44	16.094	
3,050.00	2,927.96	3,025.17	2,953.18	12.22	11.54	130.923	-249.68	-529.51	369.08	346.24	22.84	16.160	
3,100.00	2,975.05	3,074.54	3,000.96	12.44	11.74	131.017	-255.31	-540.57	377.00	353.76	23.24	16.224	
3,150.00	3,022.14	3,123.90	3,048.74	12.66	11.94	131.108	-260.95	-551.64	384.91	361.28	23.63	16.286	
3,200.00	3,069.23	3,173.27	3,096.52	12.89	12.14	131.195	-266.58	-562.70	392.83	368.80	24.03	16.346	
3,250.00	3,116.32	3,222.63	3,144.30	13.11	12.34	131.279	-272.21	-573.76	400.75	376.32	24.43	16.404	
3,300.00	3,163.41	3,272.00	3,192.08	13.33	12.55	131.359	-277.85	-584.82	408.67	383.84	24.83	16.460	
3,350.00	3,210.50	3,321.36	3,239.86	13.55	12.75	131.436	-283.48	-595.88	416.59	391.37	25.23	16.514	
3,400.00	3,257.59	3,370.73	3,287.64	13.78	12.95	131.511	-289.11	-606.94	424.52	398.89	25.62	16.567	
3,450.00	3,304.68	3,420.09	3,335.42	14.00	13.15	131.583	-294.75	-618.01	432.44	406.42	26.02	16.618	
3,500.00	3,351.76	3,469.46	3,383.19	14.22	13.35	131.652	-300.38	-629.07	440.36	413.94	26.42	16.667	
3,550.00	3,398.85	3,518.83	3,430.97	14.44	13.55	131.718	-306.02	-640.13	448.29	421.47	26.82	16.715	
3,600.00	3,445.94	3,568.19	3,478.75	14.67	13.75	131.783	-311.65	-651.19	456.21	428.99	27.22	16.762	
3,650.00	3,493.03	3,617.56	3,526.53	14.89	13.96	131.845	-317.28	-662.25	464.14	436.52	27.62	16.807	
3,700.00	3,540.12	3,666.92	3,574.31	15.11	14.16	131.905	-322.92	-673.32	472.06	444.05	28.01	16.850	
3,750.00	3,587.21	3,716.29	3,622.09	15.34	14.36	131.963	-328.55	-684.38	479.99	451.57	28.41	16.893	
3,800.00	3,634.30	3,765.65	3,669.87	15.56	14.56	132.019	-334.18	-695.44	487.91	459.10	28.81	16.934	
3,850.00	3,681.39	3,815.02	3,717.65	15.78	14.76	132.074	-339.82	-706.50	495.84	466.63	29.21	16.975	
3,900.00	3,728.48	3,864.38	3,765.43	16.01	14.96	132.126	-345.45	-717.56	503.77	474.16	29.61	17.014	
3,950.00	3,775.57	3,913.75	3,813.21	16.23	15.17	132.178	-351.09	-728.63	511.70	481.69	30.01	17.052	
4,000.00	3,822.66	3,963.11	3,860.99	16.45	15.37	132.227	-356.72	-739.69	519.63	489.22	30.41	17.089	
4,050.00	3,869.75	4,012.48	3,908.77	16.67	15.57	132.275	-362.35	-750.75	527.55	496.75	30.81	17.125	
4,100.00	3,916.84	4,061.85	3,956.54	16.90	15.77	132.322	-367.99	-761.81	535.48	504.28	31.21	17.160	
4,150.00	3,963.93	4,111.21	4,004.32	17.12	15.97	132.367	-373.62	-772.87	543.41	511.81	31.60	17.194	
4,200.00	4,011.02	4,160.58	4,052.10	17.34	16.17	132.411	-379.25	-783.93	551.34	519.34	32.00	17.228	
4,250.00	4,058.10	4,209.94	4,099.88	17.57	16.38	132.454	-384.89	-795.00	559.27	526.87	32.40	17.260	
4,300.00	4,105.19	4,259.31	4,147.66	17.79	16.58	132.495	-390.52	-806.06	567.20	534.40	32.80	17.292	
4,350.00	4,152.28	4,308.67	4,195.44	18.01	16.78	132.536	-396.16	-817.12	575.13	541.93	33.20	17.323	
4,400.00	4,199.37	4,358.04	4,243.22	18.24	16.98	132.575	-401.79	-828.18	583.06	549.46	33.60	17.353	
4,450.00	4,246.46	4,407.40	4,291.00	18.46	17.18	132.613	-407.42	-839.24	590.99	557.00	34.00	17.383	
4,500.00	4,293.55	4,456.77	4,338.78	18.68	17.38	132.650	-413.06	-850.31	598.93	564.53	34.40	17.411	
4,550.00	4,340.64	4,506.14	4,386.56	18.91	17.59	132.686	-418.69	-861.37	606.86	572.06	34.80	17.440	
4,600.00	4,387.73	4,555.50	4,434.34	19.13	17.79	132.722	-424.32	-872.43	614.79	579.59	35.20	17.467	
4,650.00	4,434.91	4,606.87	4,484.14	19.35	18.00	132.757	-430.17	-883.57	622.71	587.13	35.57	17.505	
4,700.00	4,482.67	4,660.23	4,536.38	19.57	18.20	132.791	-436.14	-892.58	630.52	594.61	35.92	17.555	
4,750.00	4,530.89	4,713.69	4,589.17	19.77	18.40	132.824	-441.98	-898.66	638.20	601.95	36.25	17.608	
4,800.00	4,579.34	4,767.30	4,642.38	19.95	18.59	132.853	-447.67	-901.77	645.69	609.13	36.56	17.662	
4,850.00	4,627.79	4,821.10	4,695.88	20.12	18.76	132.877	-453.21	-901.88	652.98	616.13	36.85	17.718	
4,900.00	4,676.00	4,875.11	4,749.54	20.28	18.92	132.897	-458.58	-908.94	660.04	622.90	37.13	17.774	
4,950.00	4,723.73	4,929.37	4,803.21	20.42	19.07	132.912	-463.75	-912.93	666.83	629.43	37.40	17.829	
5,000.00	4,770.75	4,983.94	4,856.77	20.54	19.21	132.923	-468.71	-918.81	673.34	635.68	37.66	17.881	
5,050.00	4,816.83	5,038.83	4,910.06	20.66	19.35	132.930	-473.45	-921.57	679.55	641.65	37.90	17.929	
5,100.00	4,861.74	5,094.09	4,962.93	20.76	19.48	132.934	-477.95	-926.16	685.44	647.31	38.14	17.973	
5,150.00	4,905.28	5,149.75	5,015.22	20.86	19.60	132.936	-482.19	-937.57	691.01	652.64	38.36	18.013	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.00	4,947.22	5,205.86	5,066.77	20.94	19.72	-116.678	-486.15	-815.77	696.23	657.65	38.58	18.048	
5,250.00	4,987.37	5,262.46	5,117.39	21.01	19.84	-114.764	-489.82	-790.76	701.11	662.32	38.78	18.078	
5,300.00	5,025.51	5,319.57	5,166.91	21.07	19.95	-113.352	-493.17	-762.52	705.63	666.65	38.98	18.104	
5,350.00	5,061.48	5,377.25	5,215.14	21.13	20.07	-112.346	-496.18	-731.06	709.79	670.63	39.16	18.125	
5,400.00	5,095.10	5,435.52	5,261.88	21.18	20.18	-111.676	-498.83	-696.37	713.60	674.26	39.34	18.141	
5,450.00	5,126.19	5,494.43	5,306.92	21.21	20.29	-111.288	-501.11	-658.47	717.04	677.54	39.50	18.154	
5,500.00	5,154.62	5,554.03	5,350.04	21.25	20.40	-111.144	-502.99	-617.40	720.14	680.48	39.65	18.162	
5,550.00	5,180.35	5,614.37	5,391.03	21.27	20.51	-111.442	-504.45	-573.14	722.86	683.06	39.80	18.163	
5,600.00	5,205.35	5,675.99	5,429.94	21.30	20.63	-112.199	-505.48	-525.40	724.97	684.99	39.98	18.135	
5,650.00	5,230.35	5,738.65	5,466.30	21.33	20.76	-112.657	-506.04	-474.38	726.27	686.07	40.21	18.064	
5,700.00	5,255.35	5,801.29	5,499.26	21.36	20.90	-112.803	-506.10	-421.12	726.69	686.22	40.47	17.954	
5,721.08	5,265.80	5,822.37	5,509.79	21.38	20.95	-112.810	-506.05	-402.87	726.73	686.17	40.57	17.914	
5,750.00	5,280.20	5,851.29	5,524.25	21.40	21.02	-112.809	-505.97	-377.82	726.76	686.06	40.70	17.857	
5,800.00	5,302.17	5,901.16	5,549.19	21.44	21.15	-112.934	-505.84	-334.63	728.09	687.30	40.80	17.847	
5,850.00	5,320.15	5,950.54	5,573.88	21.48	21.30	-113.205	-505.71	-291.87	731.17	690.26	40.91	17.873	
5,900.00	5,333.99	5,999.05	5,598.14	21.52	21.44	-113.593	-505.58	-249.86	736.07	695.05	41.02	17.944	
5,950.00	5,343.59	6,105.18	5,642.44	21.56	21.79	-114.918	-505.28	-153.58	741.06	699.87	41.19	17.991	
6,000.00	5,348.88	6,217.66	5,669.20	21.60	22.17	-115.711	-504.95	-44.53	743.96	702.47	41.50	17.927	
6,050.00	5,350.00	6,313.84	5,675.00	21.64	22.50	-115.880	-504.66	51.38	744.58	702.66	41.92	17.762	
6,100.00	5,350.00	6,363.84	5,675.00	21.69	22.68	-115.880	-504.50	101.38	744.58	702.31	42.27	17.614	
6,150.00	5,350.00	6,413.84	5,675.00	21.77	22.86	-115.880	-504.35	151.38	744.58	701.93	42.65	17.458	
6,200.00	5,350.00	6,463.84	5,675.00	21.87	23.07	-115.880	-504.20	201.38	744.58	701.54	43.04	17.298	
6,250.00	5,350.00	6,513.84	5,675.00	21.99	23.28	-115.880	-504.04	251.38	744.58	701.12	43.46	17.131	
6,300.00	5,350.00	6,563.84	5,675.00	22.14	23.52	-115.880	-503.89	301.38	744.58	700.68	43.90	16.961	
6,350.00	5,350.00	6,613.84	5,675.00	22.32	23.75	-115.880	-503.74	351.38	744.58	700.23	44.36	16.786	
6,400.00	5,350.00	6,663.84	5,675.00	22.51	24.01	-115.880	-503.58	401.38	744.58	699.75	44.83	16.608	
6,450.00	5,350.00	6,713.84	5,675.00	22.74	24.27	-115.880	-503.43	451.38	744.59	699.26	45.33	16.426	
6,500.00	5,350.00	6,763.84	5,675.00	22.98	24.55	-115.880	-503.28	501.38	744.59	698.75	45.84	16.244	
6,550.00	5,350.00	6,813.84	5,675.00	23.24	24.83	-115.880	-503.13	551.38	744.59	698.22	46.37	16.057	
6,600.00	5,350.00	6,863.84	5,675.00	23.52	25.13	-115.880	-502.97	601.38	744.59	697.67	46.91	15.871	
6,650.00	5,350.00	6,913.84	5,675.00	23.81	25.43	-115.880	-502.82	651.38	744.59	697.11	47.48	15.683	
6,700.00	5,350.00	6,963.84	5,675.00	24.11	25.74	-115.880	-502.67	701.38	744.59	696.54	48.05	15.495	
6,750.00	5,350.00	7,013.84	5,675.00	24.43	26.06	-115.880	-502.51	751.38	744.59	695.94	48.65	15.306	
6,800.00	5,350.00	7,063.84	5,675.00	24.75	26.39	-115.880	-502.36	801.38	744.59	695.34	49.25	15.118	
6,850.00	5,350.00	7,113.84	5,675.00	25.09	26.73	-115.880	-502.21	851.38	744.59	694.72	49.88	14.929	
6,900.00	5,350.00	7,163.84	5,675.00	25.43	27.08	-115.879	-502.05	901.38	744.59	694.09	50.51	14.742	
6,950.00	5,350.00	7,213.84	5,675.00	25.79	27.43	-115.879	-501.90	951.38	744.59	693.44	51.16	14.555	
7,000.00	5,350.00	7,263.84	5,675.00	26.15	27.79	-115.879	-501.75	1,001.38	744.60	692.78	51.81	14.371	
7,050.00	5,350.00	7,313.84	5,675.00	26.52	28.16	-115.879	-501.59	1,051.38	744.60	692.11	52.49	14.186	
7,100.00	5,350.00	7,363.84	5,675.00	26.89	28.53	-115.879	-501.44	1,101.38	744.60	691.43	53.17	14.005	
7,150.00	5,350.00	7,413.84	5,675.00	27.28	28.91	-115.879	-501.29	1,151.38	744.60	690.74	53.86	13.824	
7,200.00	5,350.00	7,463.84	5,675.00	27.67	29.30	-115.879	-501.14	1,201.38	744.60	690.03	54.57	13.646	
7,250.00	5,350.00	7,513.84	5,675.00	28.07	29.69	-115.879	-500.98	1,251.38	744.60	689.32	55.28	13.469	
7,300.00	5,350.00	7,563.84	5,675.00	28.47	30.09	-115.879	-500.83	1,301.38	744.60	688.60	56.00	13.295	
7,350.00	5,350.00	7,613.84	5,675.00	28.88	30.49	-115.879	-500.68	1,351.38	744.60	687.86	56.74	13.123	
7,400.00	5,350.00	7,663.84	5,675.00	29.29	30.90	-115.879	-500.52	1,401.38	744.60	687.12	57.48	12.954	
7,450.00	5,350.00	7,713.84	5,675.00	29.71	31.31	-115.879	-500.37	1,451.37	744.60	686.37	58.23	12.787	
7,500.00	5,350.00	7,763.84	5,675.00	30.13	31.73	-115.879	-500.22	1,501.37	744.60	685.61	58.99	12.622	
7,550.00	5,350.00	7,813.84	5,675.00	30.56	32.15	-115.879	-500.06	1,551.37	744.60	684.84	59.76	12.460	
7,600.00	5,350.00	7,863.84	5,675.00	30.99	32.58	-115.879	-499.91	1,601.37	744.61	684.07	60.54	12.300	
7,650.00	5,350.00	7,913.84	5,675.00	31.43	33.01	-115.879	-499.76	1,651.37	744.61	683.29	61.32	12.143	
7,700.00	5,350.00	7,963.84	5,675.00	31.87	33.44	-115.879	-499.61	1,701.37	744.61	682.50	62.11	11.989	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,750.00	5,350.00	8,013.84	5,675.00	32.31	33.88	-115.879	-499.45	1,751.37	744.61	681.70	62.91	11.837	
7,800.00	5,350.00	8,063.84	5,675.00	32.76	34.32	-115.879	-499.30	1,801.37	744.61	680.90	63.71	11.687	
7,850.00	5,350.00	8,113.84	5,675.00	33.21	34.77	-115.879	-499.15	1,851.37	744.61	680.09	64.52	11.540	
7,900.00	5,350.00	8,163.84	5,675.00	33.66	35.21	-115.879	-498.99	1,901.37	744.61	679.27	65.34	11.396	
7,950.00	5,350.00	8,213.84	5,675.00	34.12	35.67	-115.879	-498.84	1,951.37	744.61	678.45	66.16	11.255	
8,000.00	5,350.00	8,263.84	5,675.00	34.58	36.12	-115.879	-498.69	2,001.37	744.61	677.62	66.99	11.116	
8,050.00	5,350.00	8,313.84	5,675.00	35.05	36.58	-115.879	-498.53	2,051.37	744.61	676.79	67.82	10.979	
8,100.00	5,350.00	8,363.84	5,675.00	35.51	37.04	-115.879	-498.38	2,101.37	744.61	675.95	68.66	10.845	
8,150.00	5,350.00	8,413.84	5,675.00	35.98	37.50	-115.879	-498.23	2,151.37	744.62	675.11	69.51	10.713	
8,200.00	5,350.00	8,463.84	5,675.00	36.46	37.97	-115.879	-498.08	2,201.37	744.62	674.26	70.35	10.584	
8,250.00	5,350.00	8,513.84	5,675.00	36.93	38.44	-115.879	-497.92	2,251.37	744.62	673.41	71.21	10.457	
8,300.00	5,350.00	8,563.84	5,675.00	37.41	38.91	-115.879	-497.77	2,301.37	744.62	672.55	72.07	10.332	
8,350.00	5,350.00	8,613.84	5,675.00	37.89	39.39	-115.879	-497.62	2,351.37	744.62	671.69	72.93	10.210	
8,400.00	5,350.00	8,663.84	5,675.00	38.37	39.86	-115.879	-497.46	2,401.37	744.62	670.82	73.80	10.090	
8,450.00	5,350.00	8,713.84	5,675.00	38.86	40.34	-115.878	-497.31	2,451.37	744.62	669.95	74.67	9.972	
8,500.00	5,350.00	8,763.84	5,675.00	39.34	40.82	-115.878	-497.16	2,501.37	744.62	669.08	75.54	9.857	
8,550.00	5,350.00	8,813.84	5,675.00	39.83	41.31	-115.878	-497.00	2,551.37	744.62	668.20	76.42	9.744	
8,600.00	5,350.00	8,863.84	5,675.00	40.32	41.79	-115.878	-496.85	2,601.37	744.62	667.32	77.30	9.632	
8,650.00	5,350.00	8,913.84	5,675.00	40.81	42.28	-115.878	-496.70	2,651.37	744.62	666.43	78.19	9.523	
8,700.00	5,350.00	8,963.84	5,675.00	41.31	42.77	-115.878	-496.54	2,701.37	744.62	665.54	79.08	9.416	
8,750.00	5,350.00	9,013.84	5,675.00	41.80	43.26	-115.878	-496.39	2,751.37	744.63	664.65	79.97	9.311	
8,800.00	5,350.00	9,063.84	5,675.00	42.30	43.75	-115.878	-496.24	2,801.37	744.63	663.76	80.87	9.208	
8,850.00	5,350.00	9,113.84	5,675.00	42.80	44.24	-115.878	-496.09	2,851.37	744.63	662.86	81.77	9.106	
8,900.00	5,350.00	9,163.84	5,675.00	43.30	44.74	-115.878	-495.93	2,901.37	744.63	661.96	82.67	9.007	
8,950.00	5,350.00	9,213.84	5,675.00	43.80	45.24	-115.878	-495.78	2,951.37	744.63	661.05	83.58	8.909	
9,000.00	5,350.00	9,263.84	5,675.00	44.30	45.74	-115.878	-495.63	3,001.37	744.63	660.14	84.49	8.814	
9,050.00	5,350.00	9,313.84	5,675.00	44.81	46.24	-115.878	-495.47	3,051.37	744.63	659.23	85.40	8.720	
9,100.00	5,350.00	9,363.84	5,675.00	45.32	46.74	-115.878	-495.32	3,101.37	744.63	658.32	86.31	8.627	
9,150.00	5,350.00	9,413.84	5,675.00	45.82	47.24	-115.878	-495.17	3,151.37	744.63	657.41	87.23	8.537	
9,200.00	5,350.00	9,463.84	5,675.00	46.33	47.75	-115.878	-495.01	3,201.37	744.63	656.49	88.15	8.448	
9,250.00	5,350.00	9,513.84	5,675.00	46.84	48.25	-115.878	-494.86	3,251.37	744.63	655.57	89.07	8.360	
9,300.00	5,350.00	9,563.84	5,675.00	47.35	48.76	-115.878	-494.71	3,301.37	744.64	654.64	89.99	8.275	
9,350.00	5,350.00	9,613.84	5,675.00	47.87	49.27	-115.878	-494.56	3,351.37	744.64	653.72	90.92	8.190	
9,400.00	5,350.00	9,663.84	5,675.00	48.38	49.78	-115.878	-494.40	3,401.37	744.64	652.79	91.84	8.108	
9,450.00	5,350.00	9,713.84	5,675.00	48.90	50.29	-115.878	-494.25	3,451.37	744.64	651.86	92.77	8.026	
9,500.00	5,350.00	9,763.84	5,675.00	49.41	50.80	-115.878	-494.10	3,501.37	744.64	650.93	93.71	7.946	
9,550.00	5,350.00	9,813.84	5,675.00	49.93	51.32	-115.878	-493.94	3,551.37	744.64	650.00	94.64	7.868	
9,600.00	5,350.00	9,863.84	5,675.00	50.45	51.83	-115.878	-493.79	3,601.36	744.64	649.06	95.58	7.791	
9,650.00	5,350.00	9,913.84	5,675.00	50.97	52.34	-115.878	-493.64	3,651.36	744.64	648.13	96.52	7.715	
9,700.00	5,350.00	9,963.84	5,675.00	51.48	52.86	-115.878	-493.48	3,701.36	744.64	647.19	97.46	7.641	
9,750.00	5,350.00	10,013.84	5,675.00	52.01	53.38	-115.878	-493.33	3,751.36	744.64	646.25	98.40	7.568	
9,800.00	5,350.00	10,063.84	5,675.00	52.53	53.90	-115.878	-493.18	3,801.36	744.64	645.30	99.34	7.496	
9,850.00	5,350.00	10,113.84	5,675.00	53.05	54.41	-115.878	-493.03	3,851.36	744.64	644.36	100.29	7.425	
9,900.00	5,350.00	10,163.84	5,675.00	53.57	54.93	-115.878	-492.87	3,901.36	744.65	643.41	101.23	7.356	
9,950.00	5,350.00	10,213.84	5,675.00	54.10	55.45	-115.878	-492.72	3,951.36	744.65	642.47	102.18	7.287	
10,000.00	5,350.00	10,263.84	5,675.00	54.62	55.98	-115.877	-492.57	4,001.36	744.65	641.52	103.13	7.220	
10,050.00	5,350.00	10,313.84	5,675.00	55.15	56.50	-115.877	-492.41	4,051.36	744.65	640.57	104.08	7.154	
10,100.00	5,350.00	10,363.84	5,675.00	55.67	57.02	-115.877	-492.26	4,101.36	744.65	639.61	105.04	7.089	
10,150.00	5,350.00	10,413.84	5,675.00	56.20	57.55	-115.877	-492.11	4,151.36	744.65	638.66	105.99	7.026	
10,200.00	5,350.00	10,463.84	5,675.00	56.73	58.07	-115.877	-491.95	4,201.36	744.65	637.71	106.95	6.963	
10,250.00	5,350.00	10,513.84	5,675.00	57.26	58.60	-115.877	-491.80	4,251.36	744.65	636.75	107.90	6.901	
10,300.00	5,350.00	10,563.84	5,675.00	57.79	59.12	-115.877	-491.65	4,301.36	744.65	635.79	108.86	6.840	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design TESORO 20 FEDERAL COM - 90H - Wellbore #1 - PERMIT													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,350.00	5,350.00	10,613.84	5,675.00	58.32	59.65	-115.877	-491.50	4,351.36	744.65	634.83	109.82	6.781		
10,400.00	5,350.00	10,663.84	5,675.00	58.85	60.18	-115.877	-491.34	4,401.36	744.65	633.87	110.78	6.722		
10,450.00	5,350.00	10,713.84	5,675.00	59.38	60.70	-115.877	-491.19	4,451.36	744.66	632.91	111.74	6.664		
10,500.00	5,350.00	10,763.84	5,675.00	59.91	61.23	-115.877	-491.04	4,501.36	744.66	631.95	112.71	6.607		
10,550.00	5,350.00	10,813.84	5,675.00	60.44	61.76	-115.877	-490.88	4,551.36	744.66	630.98	113.67	6.551		
10,600.00	5,350.00	10,863.84	5,675.00	60.97	62.29	-115.877	-490.73	4,601.36	744.66	630.02	114.64	6.496		
10,650.00	5,350.00	10,913.84	5,675.00	61.51	62.82	-115.877	-490.58	4,651.36	744.66	629.05	115.60	6.441		
10,700.00	5,350.00	10,963.84	5,675.00	62.04	63.35	-115.877	-490.42	4,701.36	744.66	628.09	116.57	6.388		
10,750.00	5,350.00	11,013.84	5,675.00	62.58	63.89	-115.877	-490.27	4,751.36	744.66	627.12	117.54	6.335		
10,800.00	5,350.00	11,063.84	5,675.00	63.11	64.42	-115.877	-490.12	4,801.36	744.66	626.15	118.51	6.283		
10,850.00	5,350.00	11,113.84	5,675.00	63.65	64.95	-115.877	-489.96	4,851.36	744.66	625.18	119.48	6.232		
10,900.00	5,350.00	11,163.84	5,675.00	64.18	65.48	-115.877	-489.81	4,901.36	744.66	624.21	120.45	6.182		
10,950.00	5,350.00	11,213.84	5,675.00	64.72	66.02	-115.877	-489.66	4,951.36	744.66	623.24	121.43	6.133		
11,000.00	5,350.00	11,263.84	5,675.00	65.25	66.55	-115.877	-489.51	5,001.36	744.66	622.26	122.40	6.084		
11,050.00	5,350.00	11,313.84	5,675.00	65.79	67.09	-115.877	-489.35	5,051.36	744.67	621.29	123.38	6.036		
11,100.00	5,350.00	11,363.84	5,675.00	66.33	67.62	-115.877	-489.20	5,101.36	744.67	620.32	124.35	5.988		
11,150.00	5,350.00	11,413.84	5,675.00	66.87	68.16	-115.877	-489.05	5,151.36	744.67	619.34	125.33	5.942		
11,154.26	5,350.00	11,418.10	5,675.00	66.91	68.20	-115.877	-489.03	5,155.61	744.67	619.26	125.41	5.938		
11,165.49	5,350.00	11,429.08	5,675.00	67.03	68.32	-115.877	-489.00	5,166.60	744.67	619.04	125.63	5.928 SF		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

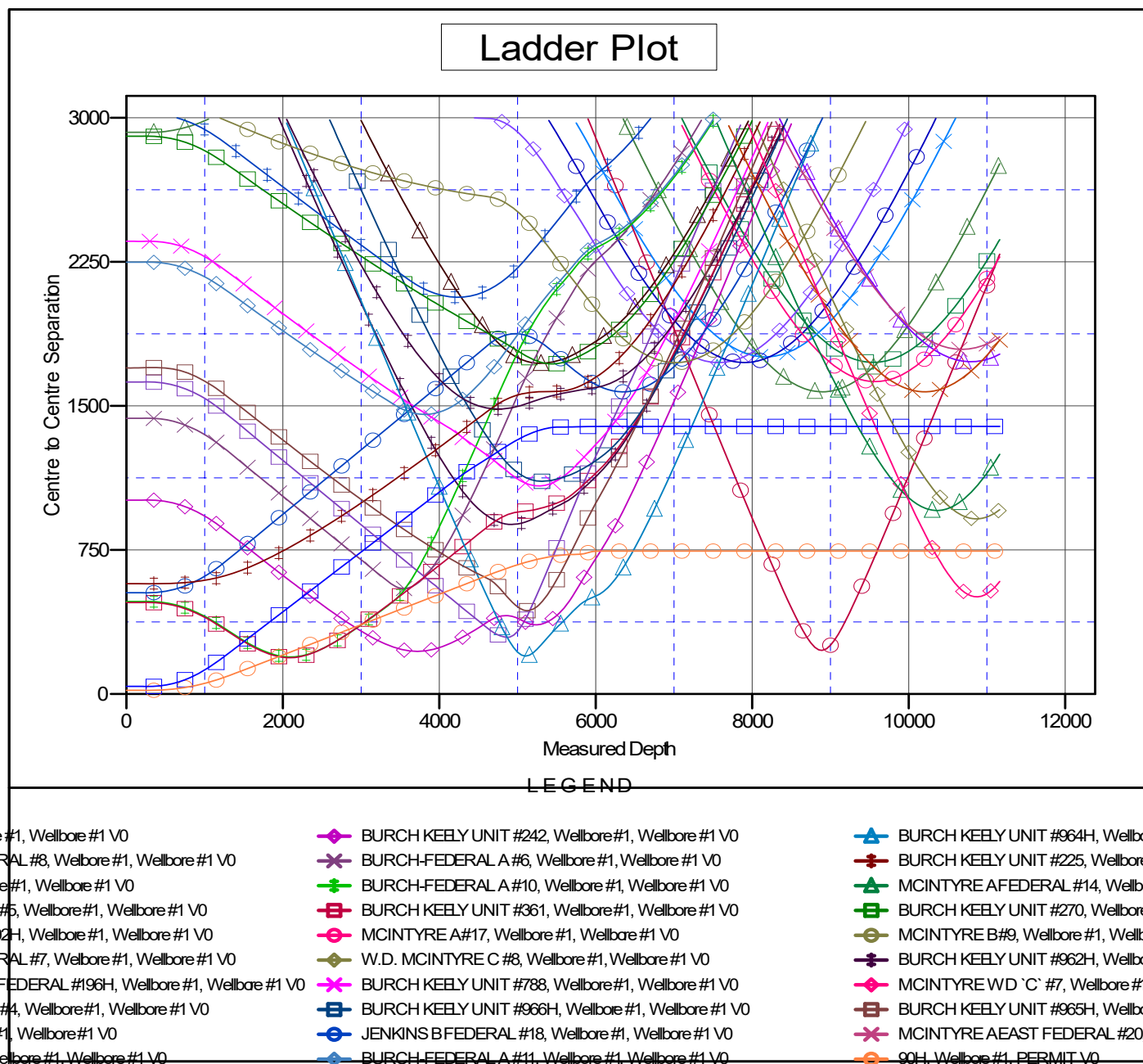
Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	71H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB = 20' @ 3658.00usft (AKITA 57) Coordinates are relative to: 71H

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.179°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

07/29/24 9:42:45AM

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COMPASS 5000.1 Build 74



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 71H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
Reference Site:	TESORO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3658.00usft (AKITA 57)
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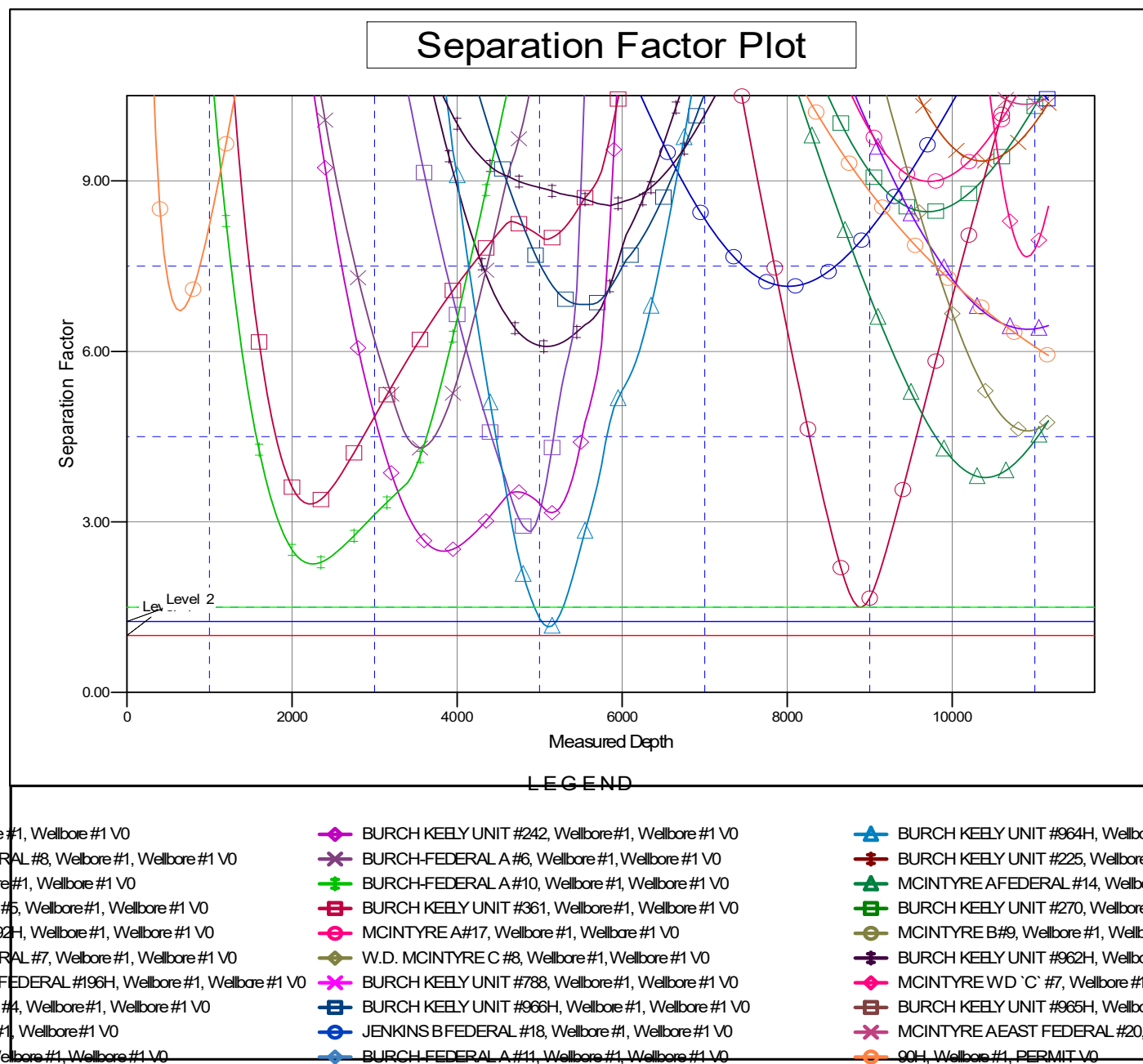
Reference Depths are relative to RKB = 20' @ 3658.00usft (AKITA 57) Coordinates are relative to: 71H

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.333333

Grid Convergence at Surface is: 0.179°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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COMPASS 5000.1 Build 74

Pecos District

Application for Permit to Drill

Conditions of Approval

Geology Concerns

Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst	☐ Medium	☐ High	☐ Critical
H2S	☐ None	☐ Below 100 PPM	☒ Above 100 PPM
Other	☐ 4 String Area	☐ Capitan Reef	☐ SWD Well

Note: The geology of the area where the well is being drilled determines the COAs that apply, not the above table.

Additional Engineering Requirements

Surface casing must be set at: 345 feet

Intermediate casing must be set at: 1,468 feet

General Requirements

1. Changes to the approved APD casing program need prior approval.
2. The Bureau of Land Management (BLM) will be notified in advance for a representative to witness:
 - a. Well spudding (minimum of 24 hours notice)
 - b. Setting and/or cementing of all casing strings (minimum of 4 hours notice)
 - c. BOPE tests (minimum of 4 hours notice)

Eddy County

620 East Greene Street, Carlsbad, NM 88220

(575) 361-2822

BLM_NM_CFO_DrillingNotifications@BLM.GOV

Lea County

414 West Taylor, Hobbs, NM 88240

(575) 689-5981

3. The initial wellhead installed on the well will remain on the well with spools used as needed.
4. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig:
 - i. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with a Spudder Rig:
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - iii. BOP/BOPE test to be conducted per 43 CFR 3172.6 as soon as 2nd Rig is rigged up on well.
5. Floor controls are required for 3M or greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller, and will always be operational during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table or the area immediately above the substructure on which the draw works are located (this does not include the doghouse or stairway area).
6. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

Pressure Control

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR 3172.6 and API STD 53 Sec. 5.3.
2. 5M or higher systems require an HCR valve, remote kill line, and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE, and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

- d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
 - e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3172.6(b)(9).
 - f. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - g. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, no tests shall commence until the cement has had a minimum of 24 hours setup time.
 - h. The tests shall be done by an independent service company utilizing a test plug, not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR 3172 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
4. If the operator has proposed using a 5,000 (5M) Annular on a 10M BOP:
- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi.
5. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
- a. Wellhead shall be installed by manufacturer's representatives (submit documentation with subsequent sundry).

- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed, and another wellhead installed.
6. If a variance is approved for break testing the BOPE, the following requirements apply:
- a. BOPE break testing is only approved for a BOP rated at 5M or less.
 - b. Approval is only for the intermediate hole sections, so long as those sections do not go deeper than the Bone Springs formation.
 - c. The Annular Preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.
 - d. A full BOP test shall be performed every 21 days (at a minimum).
 - e. A full BOP test is required prior to drilling the first intermediate hole section (if applicable). If any subsequent intermediate hole interval is deeper than the first, a full BOP test shall be required (a maximum 200 foot difference in true vertical depth (TVD) is allowed).
 - f. BOPE break testing is not permitted for drilling the production hole section.
 - g. While in transfer, the BOP shall be secured by the hydraulic carrier or cradle.
 - h. If any repairs or replacements of the BOPE is required, the BOPE shall be tested as required by 43 CFR 3172.
 - i. Pressure tests shall be performed on any BOPE components that have been disconnected. A low pressure (250-300 psi) and a high pressure (BOP max pressure rating) test are required.
 - j. If a testing plug is used, pressure shall be maintained for at least 10 minutes. If there is any bleed off in pressure, the test shall be considered to have failed.
 - k. If no testing plug is used, pressure shall be maintained for at least 30 minutes. If there is a decline in pressure of more than 10 percent, the test shall be considered to have failed.
 - l. The appropriate Bureau of Land Management (BLM) office shall be notified a minimum of 4 hours before testing occurs.
 - m. Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
 - n. If break testing is not used, then a full BOPE test shall be conducted.
7. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply:
- a. The flex line must meet the requirements of API 16C.

- b. Check condition of flexible line from BOP to choke manifold (replace if exterior is damaged or if line fails test).
- c. Line is to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements.
- d. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating.
- e. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, shall be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

Casing and Cement

1. Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).
2. On any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. The formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
3. Provide compressive strengths (including hours to reach required 500 pounds compressive strength) prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
4. The surface casing shall be set at a minimum of 25 feet into the Rustler Anhydrite and 80 feet above the salt and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8 hours (or 24 hours in the Potash Area) or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

5. Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.
6. Intermediate casing must be cemented to surface. For medium/high cave/karst, potash, and Capitan Reef, wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
7. The production cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
8. Production liner cement should tie-back at least 100 feet into previous casing string. Operator shall provide verification of cement top.
9. In WIPP Areas, cement must come to surface on the first three casing strings.
10. If cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
11. No pea gravel permitted for remedial cement or fall back remedial cement without prior authorization from a BLM petroleum engineer.
12. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
13. DV tools:
 - a. First stage to DV tool (The DV tool may be cancelled if cement circulates to surface on the first stage):
 - i. Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - i. For intermediate casing, cement to surface.
 - ii. For production casing, cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
 - iii. If cement does not circulate, contact the appropriate BLM office.

14. Potash Areas:

- a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- b. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
 - i. Cement reaches a minimum compressive strength of 500 psi for all cement blends
 - ii. Until cement has been in place at least 24 hours.
- c. WOC time will be recorded in the driller's log.
- d. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- e. In R111 Potash Areas, if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.
- f. In Secretary Potash Areas, if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

15. Wait on cement (WOC) for Water Basin:

- a. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
 - i. Cement reaches a minimum compressive strength of 500 psi at the shoe
 - ii. Until cement has been in place at least 8 hours.
- b. WOC time will be recorded in the driller's log.

16. Medium/High/Critical Cave/Karst Areas:

- a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- b. In Critical Cave/Karst Areas cement must come to surface on the first three casing strings.
- c. In Medium and High Cave/Karst Areas, if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- d. In Critical Cave/Karst Areas, if cement does not circulate to surface on the first three casing strings, the cement on the 4th casing string must come to surface.

Drilling Mud

1. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation and shall be used until production casing is run and cemented.

Waste Material and Fluids

1. All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and

disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

2. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Special Requirements

1. Communitization Agreement

- a. The operator will submit a Communitization Agreement to the Santa Fe Office (301 Dinosaur Trail, Santa Fe, NM 87508), at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division.
- b. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
 - i. The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
 - ii. If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- c. In addition, the well sign shall include the surface and bottom hole lease numbers.
 - i. When the Communitization Agreement number is known, it shall also be on the sign.

2. Unit Wells

- a. The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers.
 - i. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.
- b. Commercial Well Determination
 - i. A commercial well determination shall be submitted after production has been established for at least six months (this is not necessary for secondary recovery unit wells).

3. Hydrogen Sulfide (H₂S)

- a. If H₂S is encountered, provide measured values and formations to the BLM.
- b. An H₂S area must meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items.

- c. An H2S Drilling Plan shall be activated 500 feet prior to drilling into any formation designated as having H2S.
 - d. Hydrogen Sulfide monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items.
- 4. Capitan Reef
 - a. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following (Use this for 3 string wells in the Capitan Reef, if it is a 4 string well ensure fresh water based mud is used across the Capitan interval):
 - i. Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - ii. Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports.
 - iii. The daily drilling report should show mud volume per shift/tour.
 - iv. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval.
 - v. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
- 5. Salt Water Disposal Wells
 - a. The operator shall supply the BLM with a copy of a mudlog over the permitted disposal interval and estimated in situ water salinity based on open-hole logs.
 - b. If hydrocarbons are encountered while drilling, the operator shall notify the BLM.
 - c. The operator shall provide to the BLM a summary of formation depth picks based on mudlog and geophysical logs along with a copy of the mudlog and open-hole logs from total depth to top of Devonian.
 - d. An NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:
 - i. Properly evaluate the injection zone utilizing open-hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.
 - ii. Restrict the injection fluid to the approved formation.
 - iii. If a step rate test will be run, an NOI sundry shall be submitted to the BLM for approval.

- e. If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.
6. WIPP Requirements
- a. If the proposed surface well or bottom hole is located within 330 feet of the WIPP Land Withdrawal Area boundary:
 - i. Daily drilling reports, logs, and deviation survey information are required to be submitted to the Bureau of Land Management Engineering Department and the U.S. Department of Energy (per requirements of the Joint Powers Agreement) until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum the rate of penetration and a clearly marked section showing the deviation for each 500-foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures.
 - ii. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed.
 - iii. Upon completion of the well, the operator shall submit a complete directional survey.
 - iv. Any future entry into the well for purposes of completing additional drilling will require supplemental information.
 - b. Required information shall be emailed to OilGasReports@wipp.ws.
 - i. Attached files must not be greater than 20 MB.
 - ii. Call WIPP Tech Support at 575-234-7422, during the hours of 7:00am to 4:30pm, if there are any issues sending to this address.



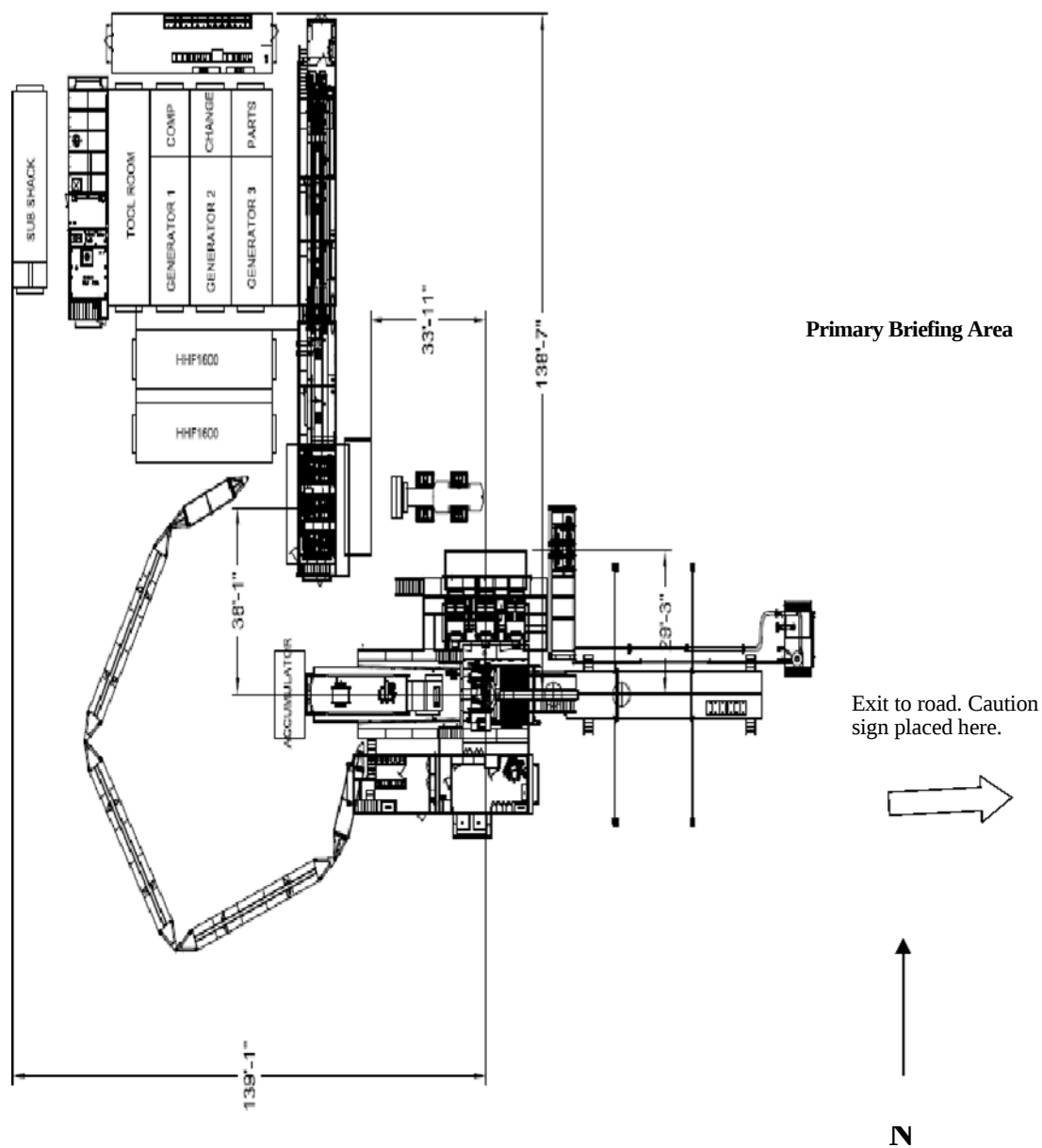
Permian Drilling Hydrogen Sulfide Drilling Operations Plan Tesoro Federal Com Development

Open drill site. No homes or buildings are near the proposed location.

1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

Secondary Briefing Area



WIND: Prevailing winds are from the Southwest

Secondary Egress

Spur Energy Partners New Mexico Operations Hydrogen Sulfide Operation Plan

A. Introduction:

The Safety of all personnel at Spur Energy Partners Facilities is of utmost importance to the company, and therefor management and employees must take responsibility for their safety and for the safety of all employees and others at a facility. If you have any concerns about the safe operations of the facility, contract personnel, or vendors, please contact the Company's Safety Contact, Superintendent, or Production Foreman immediately.

The objective of this contingency plan is to provide an organized plan of action for alerting, responding to and protecting employees, other workers and the public from H₂S exposure in the event of a release of a potentially hazardous volume of H₂S to the atmosphere. This plan should be activated immediately if any such release occurs. The Superintendent is responsible for initiating and carrying out the plan.

B. Scope:

Prevent the uncontrolled release of H₂S into the atmosphere. Provide proper procedures and equipment to alert and respond to emergencies.

Provide immediate and adequate medical attention should an injury occur.

To provide Company employees working at actual or potential Hydrogen Sulfide (H₂S) facilities with a safe procedure to comply with applicable Federal, State and Company requirements.

This document is intended to provide general policy, procedures and expectations surrounding elevated levels of H₂S. The intent is to promote sound and safe operations, while seeking effective communication surrounding operational considerations working around H₂S.

This procedure applies to all Company employees and contractors working at facilities that have the potential to release 100 ppm or higher concentrations of H₂S.

The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H₂S).

C. Hydrogen Sulfide Gas (H₂S) Characteristics:

1. H₂S is a toxic, poisonous gas that could cause death or injury. And it is also flammable.
2. H₂S is an irritant and extremely toxic gas that is several times deadlier than carbon monoxide (CO).
3. H₂S is heavier than air with a specific gravity of 1.1895 @ 600 F. so it will tend to lie in lower areas. Wind movement or air currents can readily disperse H₂S since wind currents can easily overcome the heavier weight. On calm days, with no wind, the H₂S will tend to accumulate in dangerous concentrations; however, if the H₂S is warmer than the surrounding air it may rise.
4. H₂S is colorless.
5. In small concentrations, H₂S has the characteristic odor of rotten eggs. It may be detected by smell at a concentration in air of about 2 ppm but may NOT be detected

at high concentrations. DO NOT DEPEND ON THE SENSE OF SMELL TO DETECT H₂S! H₂S will paralyze the olfactory nerve causing a loss of the sense of smell within 2 – 15 minutes of an exposure in concentrations as low as 100-150 ppm.

6. H₂S burns with a blue flame and has an auto ignition temperature of 5000 F. H₂S forms an explosive mixture in the range of 4.3% to 45% by volume with air. H₂S, when ignited, produces Sulfur Dioxide (SO₂). SO₂ is another toxic gas but less toxic than H₂S.
7. Physiological Effects
 - 1,000-2,000+ ppm: Loss of consciousness and possible death.
 - 100-1,000 ppm: Serious respiratory, central nervous, and cardiovascular system effects.
 - 150-200 ppm: Olfactory fatigue (sense of smell is significantly impaired).
 - 100 ppm: Immediately Dangerous to Life and Health (IDLH concentration).
 - 5-30 ppm: Moderate irritation of the eyes.
 - 5-10 ppm: Relatively minor metabolic changes in exercising individuals during short-term exposures.
 - Less than 5 ppm: Metabolic changes observed in exercising individuals, but not clinically significant.
 - 5 ppm: Increase in anxiety symptoms (single exposure).
 - 5 ppm: Start of the dose-response curve (short-term exposure).
 - 0.032-0.02 ppm: Olfactory threshold (begin to smell).

D. H₂S Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing work at an effected facility:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.
5. The procedures for operating process equipment.

In addition, supervisory personnel will be trained in the following areas:

1. Corrective action and shutdown procedures when a release or leak occurs.
2. Notification process

Annual drills will be conducted to utilize the procedures and make improvements as needed. It will also serve as refresher training on the process.

Note: All H₂S safety equipment and systems will be installed, tested, and operational when operation commences.

E. Protective equipment controls:

Any facility that has the potential to emit H₂S at 100 ppm or higher will be required to install and utilize the below controls:

1. Where applicable, area air monitors will be installed and function tested and calibrated no less than monthly and set on a quarterly basis PM schedule.
2. Facility operators will use self contained breathing apparatuses (SCBA's) to perform routine operations in areas where H₂S may be present.
3. Trigger of 100 PPM or more must be communicated and work proceeding the trigger must use the buddy system.
4. Visible windsocks must be installed at key locations surrounding the facility.
5. H₂S warning signs must be placed at the entrance to the facility as well as other key locations.
6. Personal H₂S Monitor are required to be worn by all personnel on locations.
7. Stairs and ladders leading to the top of a tank or vessel containing 300 ppm or greater shall be chained or marked to restrict entry.

F. Emergency Procedures

1. Spill or Release of H₂S gas

If a spill or leak releases H₂S the following action must be initiated and completed:

- a. Internally – Employee contacts supervisor and HSE Department and performs “d” below.
- b. Externally - Someone identifies a possible H₂S emergency and reports it to Company Management, via the listed phone number on posted facility signs.
- c. The Company dispatches an employee to investigate possible H₂S emergency and will secure situation or initiate emergency call for backup.
- d. If the Radius of Exposure has been breached begin the following:
 - Establish safe command center.
 - Call for additional personnel and delegate the following:
 - i. Notifying public safety agencies (Sheriff, Fire Department, Department of Public Safety, Hwy. Department).
 - ii. Safeguarding the facility and effected area.
 - iii. Blocking roads as needed.
 - iv. Notifying/evacuating public.
 - v. Notifying regulatory agencies.
 - vi. Gathering additional information about release ie., location, flowrate, quantity, etc.
 - vii. Stopping release if safe to do so (use 2 trained persons)
 - viii. Notifying company management.
 - ix. Cleanup/repair facilities.

e. Facility Standard Operating Procedure

- Evacuate the area, travel crosswind then proceed upwind.
- Gather at muster point. Ensure Primary Muster point is upwind
- Notify managers & appropriate EMS if required.
- Safely shut down (ESD) facility if the facility hasn't already shut in.
- Pick up SCBA (should be a 30 minute - 1 hour pack, located at Muster point.)
- Use buddy system for man down scenario with rescuers assigned.
 - 1 person to mask up to operate facility controls as needed.
 - 1 person for rescue if needed.
 - 1 person for calling EMS and company management
- Investigate area and isolate release of gas if safe to do and ensure closure using 4 gas monitor.
- If venting gas can't be isolated, return to muster point, and re-evaluate path forward.
- Give detailed description where/how gas is being released.
- After isolation verify that area monitors return to 0 and are not in alarm.
- Resume normal operations, once managers agree the ROOT CAUSE has been addressed and corrected.

G. Contacting Authorities

Company personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the NM Emergency Response Commission must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Spur Energy Partners response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

H. Call List

Spur Energy Partners Emergency Contact List			
Person	Location	Office Phone	Cell Phone
Drilling and Completions Department			
Drilling Manager - Chris Hollis	Houston	832-930-8629	713-380-7754
Completions Manager - Theresa Voss	Houston	832-930-8614	832-849-8635
VP of Operations - Seth Ireland	Houston	832-930-8527	940-704-6375
Senior VP of Operations - John Nabors	Houston	832-930-8526	281-904-8811
Executive VP of Operations - Todd Mucha	Houston	832-930-8515	281-795-2286
HES/Environmental and Regulatory Department			
EHS Manager - Braidy Moulder	Artesia	575-616-5400	713-264-2517
Superintendent - Jerry Mathews	Artesia	575-616-5400	575-748-5234
Asst. Superintendent - Kenny Kidd	Artesia	575-616-5400	575-703-5851
Regulatory Director - Sarah Chapman	Houston	832-930-8613	281-642-5503
Regulatory Agencies			
Bureau of Land Management	Carlsbad	575-886-6544	
Bureau of Land Management	Hobbs	575-393-3612	
Bureau of Land Management	Roswell	575-622-5335	
Bureau of Land Management	Santa Fe	505-954-2000	
DOT Judicial Pipelines - Incident Reporting NM Public Regulation Commission	Santa Fe	505-827-3549 505-490-2375	
EPA Hotline	Dallas	214-665-6444	
Federal OSHA, Area Office	Lubbock	806-472-7681	
National Response Center	Washington, D.C.	800-424-8803	
National Infrastructure Coordinator Center	Washington, D.C.	202-282-2901	
New Mexico Air Quality Bureau	Santa Fe	505-827-1494	
New Mexico Oil Conservation Division	Artesia	575-748-1283 575-370-7545After	
New Mexico Oil Conservation Division	Hobbs	575-393-6161	
New Mexico Oil Conservation Division	Santa Fe	505-476-3770	
New Mexico OCD Environmental Bureau	Santa Fe	505-827-7152 505-476-3470	
New Mexico Environmental Department	Hobbs	575-827-9329	
NM State Emergency Response Center	Santa Fe	505-476-9600	

Medical Facilities		
Artesia General Hospital	Artesia	575-748-3333
Covenant Medical Center	Lubbock	806-725-1011
Covenant Medical Center Lakeside	Lubbock	806-725-6000
Guadalupe County Hospital	Carlsbad	575-887-6633
Lea Regional Hospital	Hobbs	575-492-5000
Medical Center Hospital	Odessa	432-640-4000
Midland Memorial Hospital	Midland	432-685-1111
Nor-Lea General Hospital	Lovington	575-396-6611
Odessa Regional Hospital	Odessa	432-334-8200
Union County General Hospital	Clayton	575-374-2585
University Medical Center	Lubbock	806-725-8200
Law Enforcement - Sheriff		
Ector County Sheriff's Department	Odessa	432-335-3050
Ector County Sheriff's Department	Artesia	575-746-2704

Ector County Sheriff's Department	Carlsbad	575-887-7551
Lea County Sherri's Department	Eunice	575-384-2020
Lea County Sherri's Department	Hobbs	575-393-2515
Lea County Sherri's Department	Lovington	575-396-3611
Lubbock County Sheriff's Department	Abernathy	806-296-2724
Midland County Sheriff's Department	Midland	432-688-1277
Union County Sheriff's Department	Clayton	575-374-2583
Law Enforcement - Police		
Abernathy Police Department	Abernathy	806-298-2545
Artesia City Police	Artesia	575-746-2704
Carlsbad City Police	Carlsbad	575-885-2111
Clayton City Police	Clayton	575-374-2504
Eunice City Police	Eunice	575-394-2112
Hobbs City Police	Hobbs	575-397-9265 575-393-2677
Jal City Police	Jal	575-395-2501
Lovington City Police	Lovington	575-396-2811

Midland City Police	Midland	432-685-7113
Odessa City Police	Odessa	432-335-3378
Law Enforcement - FBI		
FBI	Albuquerque	505-224-2000
FBI	Midland	432-570-0255
Law Enforcement - DPS (911)		
NM State Police	Artesia	575-746-2704
NM State Police	Carlsbad	575-885-3137
NM State Police	Eunice	575-392-5588
NM State Police	Hobbs	575-392-5588
NM State Police	Clayton	575-374-2473
Firefighting and Rescue (911)		
Abernathy	Abernathy	806-298-2022
Amistad/Rosebud	Amistad/Rosebud	575-633-9113
Artesia	Artesia	575-746-5751
Carlsbad	Carlsbad	575-885-3125
Clayton	Clayton	575-374-2435
Eunice	Eunice	575-394-2111
Hobbs	Hobbs	575-397-9308
Jal	Jal	575-395-2221
Lovington	Lovington	575-396-2359
Maljamar	Maljamar	575-676-4100
Midland	Midland	432-685-7346
Nara Visa	Nara Visa	575-461-3300
Odessa	Odessa	432-335-4659
Tucumcari	Tucumcari	911
West Odessa	Odessa	432-381-3033

Ambulance (911)		
Abernathy Ambulance	Abernathy	806-298-2241
Amistad/Rosebud	Amistad/Rosebud	575-633-9113
Artesia Ambulance	Artesia	575-746-2701
Carlsbad Ambulance	Carlsbad	575-885-2111
Clayton Ambulance	Clayton	575-374-2501
Eunice Ambulance	Eunice	575-394-3258
Hobbs Ambulance	Hobbs	575-397-9308
Jal Ambulance	Jal	575-395-3501
Lovington Ambulance	Lovington	575-396-2811
Midland Ambulance	Midland	432-685-7499
Nara Visa Ambulance	Nara Visa	575-461-3300
Odessa Ambulance	Odessa	432-335-3378
Tucumcari Ambulance	Tucumcari	911
Medical Air Ambulance Service		
AEROCARE - Methodist Hospital	Lubbock	800-627-2376
Southwest MediVac	Hobbs	800-242-6199
Odessa Care Star	Odessa	888-624-3571

I. List of Facilities with the potential for 500ppm or higher H₂S exposure.

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

ALASKA 29 FEE TANK BATTERY	CHASER 8 STATE 2 TANK BATTERY
ARABIAN 6 FEE TANK BATTERY	CHEYENNE FEDERAL TNK BTY
ARCO 26 A STATE OIL BATTERY	CLYDESDALE 1 FEE #1H BAT
ARCO B FEDERAL COM NO. 001	CLYDESDALE 1 FEE 6H - BATTERY
ARKANSAS STATE 23 TANK BATTERY	COAL TRAIN FEDERAL COM #1
AVALON FEDERAL #001	COFFIN STATE #1
B&B/ROSS RANCH OIL TANK BATTERY	COLLIER 22 STATE COM #43H
BC FEDERAL 10 (9-13) TNK BTY	COLLIER STATE OIL BATTERY
BC FEDERAL 1-8 &14 TNK BTY	CONOCO 8 STATE 4 TB
BC FEDERAL 42 TNK BTY	CONTINENTAL A STATE TNK BTY
BEE FED OIL BATTERY	CONTINENTAL B YESO TANK BTY
BEECH 25 FEDERAL #9H BATTERY	CONTINENTAL STATE 15A TNK BTY
BEECH FEDERAL 1	CRYPT 30 STATE #1H
BEECH FEDERAL 2 BATTERY	DAGGER DRAW FED/FOSTER FED TANK BATTERY
BERRY A FEDERAL #005 SWB	DARNER 9 STATE 1 TANK BATTERY
BERRY A FEDERAL PADD BATTERY	DARNER 9 STATE 2
BIG BOY STATE TB	DARTER 9 STATE 8 TANK BATTERY
BLUETAIL 8 FEDERAL 2 TANK BATTERY	DARNER 9 STATE CTB
BONE YARD 11 FEE TANK BATTERY	DEXTER FEDERAL PAD TNK BTY
BOOT HILL 25 1H SWB	DODD 10A OIL BATTERY
BOSE IKARD 4 ST COM 18H BATTERY	DODD 10B TK BTTY
BRANTLEY FEDERAL #001	DODD FED #14C TK BATT
BR-549 STATE BATTERY	DODD FED 11A BATTERY
BRADLEY 8 FEE #3H-BATTERY	DODD FED UNIT 980H BATTERY
BRADLEY 8 FEE BATTERY	DODD FEDERAL 14A-TB
BRAGG 10 FEE 1 BATTERY	DODD FEDERAL UNIT 15A BTTY
BRIGHAM H 2	DODD FEDERAL UNIT NORTH BTTY
BRIGHAM H FED (NORTH) BATTERY	DODD FEDERAL UNIT SOUTH BTTY
BURCH KEELY 13C TK BTY	DOGWOOD FEDERAL TNK BTY
BURCH KEELY 18A TK BATT	DORAMI 33 FEDERAL COM 2H.4H.9H TANK BATTERY
BURCH KEELY 19A OIL BATT	EBONY STATE TB
BURCH KEELY 23A TK BATT	EDWARD STATE TNK BTY
BURCH KEELY EAST 18B TANK BAT	ELECTRA FEDERAL 33 (NORTH) BATTERY
BURCH KEELY SEC 13A NORTH BTTY	ELECTRA FEDERAL 5 (SWEET) TNK BTY
BURCH KEELY SEC 13B SOUTH BTTY	ELECTRA FEDERAL SOUR TNK BTY
BURCH KEELY UNIT CTB BTTY	EMPIRE SOUTH DEEP UNIT 21
BURCH KEELY UNIT E BATTERY	FALABELLA 31 FEE #1H TK BATT
BURKETT 16 STATE	FALABELLA 31 FEE 8H TK BTY
CADDO FEDERAL BATTERY	FAT TIRE 12 COM FEDERAL CTB
CADILLAC ST 4 BATTERY	FEDERAL BA COM NO. 001
CALIFORNIA 29 FEE 1	FEDERAL BB NO. 001
CARMEN 3 FEDERAL BATTERY	FLAT HEAD FED COM 6H TANK BATTERY
CARRINGTON 12 ST 3,4,7 BATTERY	FLAT HEAD FED COM 27H TANK BATTERY

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

FIR FEDERAL TNK BTY	IVAR THE BONELESS FED 11H - BATTERY
FIRECRACKER STATE TB	JC FEDERAL 13 TNK BTY
FLEMMING STATE OIL BATTERY	JC FEDERAL 2 (SOUR) TNK BTY
FOLK FEDERAL B TNK BTY	JC FEDERAL 27 TNK BTY
FOLK FEDERAL TNK BTY	JENKINS B FEDERAL TNK BTY
FOLK STATE TANK BATTERY	JG STATE 16 1 TANK BATTERY
FORAN STATE OIL BATTERY	JG STATE 16 7 TANK BATTERY
GC FEDERAL 11 TNK BTY	JON BOB 1
GC FEDERAL 27 TNK BTY	JUNIPER STATE TNK BTY
GC FEDERAL TNK BTY	KIOWA OIL BATTERY
GILLESPIE STATE OIL BATTERY	KOOL AID STATE
GISSLER FEDERAL 13H TANK BATT	LAKEWOOD NORTH TANK BATTERY
GJ WEST COOP SOUTH TB	LAKEWOOD SOUTH TANK BATTERY
GJ WEST COOP UNIT 092 BTY	LARA MICHELLE STATE OIL BTTY
GJ WEST COOP UNIT 191 BTY	LEAKER CC STATE TB
GJ WEST COOP UNIT 210 BTY	LEE 3 FEE 6H - TK BATT
GJ WEST COOP UNIT CENTRAL	LIVE OAK TANK BATTERY
GJ WEST COOP UNIT N TNK BTY	MALCO 23 FEDERAL COM #13H
GOLD STAR TNK BTY	MAPLE STATE
GOODMAN 22 TANK BATTERY	MARACAS 22 STATE TANK BATTERY
GRAVE DIGGER FEDERAL COM TANK BATTERY	MARY FEDERAL OIL BATTERY
GRAVE DIGGER ST COM #3H TANK BATTERY	MAYARO 22 STATE TANK BATTERY
GRAVE DIGGER STATE COM #8H SWB	MC FEDERAL 14 TANK BATTERY
HALBERD 27 ST 3H BATTERY	MC FEDERAL 6 DEVONIAN
HANOVER STATE #3 (YESO)	MC FEDERAL PADDOCK TNK BTY
HARPER STATE TNK BTY	MC SOUTHEAST BATTERY
HARVARD FEDERAL TNK BTY	MC STATE OIL BATTERY
HATFIELD B TB	MCCOY STATE TB
HEARSE 36 ST COM TANK BATTERY	MCINTYRE A EAST TANK BATTERY
HOBGOBLIN 7 FED COM 4H TK BAT	MCINTYRE B 10
HOLDER CB 11 TNK BTY	MCINTYRE B 4
HOLDER CB FEDERAL 6&7 TNK BTY	MCINTYRE B TNK BTY
HOLIDAY	MCINTYRE DK 15 TNK BTY
HOUMA STATE TNK BTY	MCINTYRE DK FEDERAL 28H SWB
HT 18 FED 01.05.04 TANK BATTERY	MEADOWHAWK 5 FEDERAL 3
HT 18 FEDERAL 8	MELROSE FEDERAL TNK BTY
HUBER 10,11,12 FEDERAL OIL TANK BATTERY	MERAK 7 FEDERAL 8 TANK BATTERY
HUBER 3 FEDERAL OIL TANK BATTERY	MESILLA STATE 3 & 5 TNK BTY
HUBER 5 FEDERAL OIL TANK BATTERY	MESILLA STATE TNK BTY
HYDRUS 10 FED 03.07.08.11 TANK BATTERY	MESQUITE STATE TANK BATTERY
HYDRUS 10 FED 04.05 TANK BATTERY	MIMOSA STATE TNK BTY
HYDRUS 10 FED 06.09.10.12 TANK BATTERY	MIRANDA FEDERAL B TNK BTY
IMPERIAL STATE TNK BTY	MIRANDA FEDERAL TB

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

MOE FEDERAL OIL BATTERY	ROSE SOUTH TANK BATTERY
MOHAWK FEDERAL TNK BTY	ROSS RANCH 09.13.14 BATTERY
MONCRIEF 3 OIL BATTERY	SAM ADAMS 12 FED 4H UBB TK BATT
MOORE STATE OIL BATTERY	SANDY CROSSING 32 STATE COM 1
MORRIS BOYD 26 FEE COM 1H	SCHLEY FEDERAL TNK BTY
MORRIS BOYD TANK BATTERY	SHAWNEE FEDERAL TNK BTY
MORRIS E & F TANK BATTERY	SHELBY 23 BATTERY
MUSKEGON SOUTH STATE OIL BATTERY	SHERMAN 4 FEE 4H BATTERY
NAVAHO FEDERAL TNK BTY	SHERMAN 4 FEE 6H BATTERY
NELSON 13.23. TNK BATT	SHORTY 2 STATE COM TANK BATTERY
NEWCASTLE 6 FED COM - TANK BATTERY	SINCLAIR PARKE (PADDOCK) TNK BTY
NIRVANA TANK BATTERY	SKELLY 605 BATTERY
NOOSE FED 10 TANK BATTERY	SKELLY 942 BATTERY
NOOSE FED 5 TANK BATTERY	SKELLY 968 BATTERY
OKLAHOMA 32 TANK BATTERY	SKELLY 973 BATTERY
OSAGE BOYD 15 FED 09.12.13.14 TANK BATTERY	SKELLY 989 BATTERY
OSAGE BOYD YESO TANK BATTERY	SKELLY UNIT 907 CTB BATTERY
PAINT 32 FEE OIL BATTERY	SKELLY UNIT 940 BATTERY
PAN CANADIAN A2-B3 TANK BATTERY	SOUTH BOYD FED COM OIL TANK BATTERY
PASSION 1 FED PDK 5H TK BATT	SOUTH EMPIRE STATE COM 1
PATTON 5 FEE 2H OIL BATTERY	SPIKETAIL 5 STATE 2 TANK BATTERY
PATTON 5 FEE 8H OIL BATTERY	SPRUCE FEDERAL TNK BTY
PAWNEE STATE TNK BTY	STATE B GAS COM NO. 001
PEACEMAKER 25 FEDERAL TANK BATTERY	STATE S-19 YESO (SOUR) TNK BTY
PERE MARQUETTE 18 FEDERAL 1 TANK BATTERY	STONEWALL 9 FEE #1H TBAT
PILUM 15 FEE 2H BATTERY	STONEWALL 9 FEE 8H BATTERY
PINTO 36 STATE COM 1H TNK BTY	SUBMARINE 10 FED COM 2H OIL BAT
PINTO 36 STATE COM 4H TNK BTY	TAYLOR D TANK BATTEY
PINTO 36 STATE TB	TENNECO STATE TNK BTY
POLARIS B 5-10 TANK BTTY	TEX MACK FED
POSEIDON 3 FEDERAL 4 TANK BATTERY	TEXACO BE TNK BTY
POSEIDON 3 FEDERAL 05.07.17.18 TANK BATTERY	TEXAS 32 FEE TANK BATTERY
PUCKETT 13 FEDERAL COM 35H	TEXMACK 36 STATE COM #1
PUCKETT 13 FEDERAL TB	TH STATE #1
RAGNAR FED COM 25H - BATTERY	THO STATE OIL BATTRY
RANDALL FED 3 BATTERY	THORNTAIL 31 FEDERAL 1
RED LAKE 32 TANK BATTERY	THUNDER ROAD FEDERAL OIL BTTY
REDBUD FEDERAL TNK BTY	TUMAK FED 3 BAT
RINCON STATE TANK BATTERY	VEGA 9 FED TANK BATTERY
RJ UNIT NORTH TANK BATTERY	VT 36 STATE #1H
RJ UNIT SOUTH TANK BATTERY	W D MCINTYRE C 10
RONCO FEDERAL #1	WAUKEE 36 STATE COME CTB
ROSE 02.03.04.05.06 TANK BATTERY	WD MCINTYRE C 8-9 TNK BTY

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

WD MCINTYRE E TNK BTY
WELCH A 28 10.20.50 CTB
WESTERN FEDERAL TNK BTY
WHITE OAK STATE B TB
WHITE OAK STATE TNK BTY
WHITE STAR FEDERAL TNK BTY
WICHITA STATE TNK BTY
WILLOW STATE TNK BTY
YALE B OIL BATTERY
YALE STATE TANK BTY
YUCCA STATE TNK BTY



RIG # 57_{1,150 HP Double Mast Drilling Rig}

SUBSTRUCTURE

One Piece Step Down

Floor Height: 18' 9" (on 4' pony sub moving system)

Clear Height (beneath rotary beams): 15' 5"

Rotary Capacity: 400,000 lbf

Max Pipe Setback: 400,000 lbf

Note: All floor heights above are based on the substructure sitting on 6" mats & 4' pony sub moving system

MAST

106' telescoping, Drill Line: 1-1/8"

Static Hook Load: 440,000 lbf

Racking Capacity: 18,000' of 4" DP, 12,500' of 5" DP

DRAWWORKS

TSM 850 425,000lbs w/ 10 Lines

Input Power: 1,150 hp AC traction motor

Main Brake: 1,150 hp AC traction motor (Dynamic)

Aux Parking Brake: Eaton brake & drum / band brake system

TOP DRIVE

Tesco EXI 600 AC 350 Ton: Max speed 220 rpm,

Continuous Drill Torque: 30,000 ft-lbs

Max Torque (Make / Break): 45,000 ft-lbs

600 hp AC induction motor & drive system with PLC

250 Ton 5 x 36" Becket Block Assembly

IRON ROUGHNECK

NOV ST-90C Conn Range: 4 1/4" to 8 1/2"

Spin Speed: 75 rpm nominal on 5" drill pipe

Spin Torque: 1,750 ft-lbs

Maximum Make-up torque: 60,000 ft-lbs

Maximum Break-out torque: 80,000 ft-lbs

ROTARY TABLE

National 27 1/2" 500 Ton with hydraulic drive to position tools only

27 1/2" Diameter opening

POWER SYSTEM

VFD, MCC, Eaton Drives, Current Power Systems Controls, three Caterpillar C32 gen

sets, 1220 BHP.

MUD PUMP #1

HHF1600 Triplex Rated Power: 1600 hp

Stroke: 12"

Input Power: 1500 hp AC traction motor

Pressure Rating: 5000 psi

MUD PUMP #2

HHF1600 Triplex Rated Power: 1600 hp

Stroke: 12"

Input Power: 1500 hp AC traction motor

Pressure Rating: 5000 psi

MUD TANKS

Two Tank system w/ 1200 bbls total capacity

Shakers: Three MI Swaco Mongoose 4 panel dual motion

Mud Gas Separator: MI Swaco 4' OD x 12' tall

Pill Tank: 54 bbls

MUD SYSTEM

5000 psi Max Pressure

5" Main plumbing and standpipe

SCALPING TANK

Main Tank: 186 bbls capacity

Trip Tank: 24 bbls capacity

Shakers: Three NOV Venom shakers dual motion

BOP (NACE)

11" x 5000 psi WP Spherical Annular

11" x 5000 psi WP Double Ram

11" x 5000 psi WP Single Ram (Optional)

MANIFOLD

3-1/8" 5,000 psi c/w two 3 1/8" manual chokes

ACCUMULATOR

CTI: 160 gal 6 station 3000 psi, c/w N2 Backup & electric triplex pump

CATWALK

Ja-co Power Catwalk, tubular max length 47' 6", max OD 13 5/8", max weight 10,000lbs

TUBULARS

Drill Pipe: Supplied as needed, per availability

Drill Collars & heavywate: Supplied as needed, per availability

MISC.

Water Tank: 409 bbls; Fuel Tank 189 bbls; Screw Compressor

Boiler: 125 hp with Full Winterization

MOVING SYSTEM:

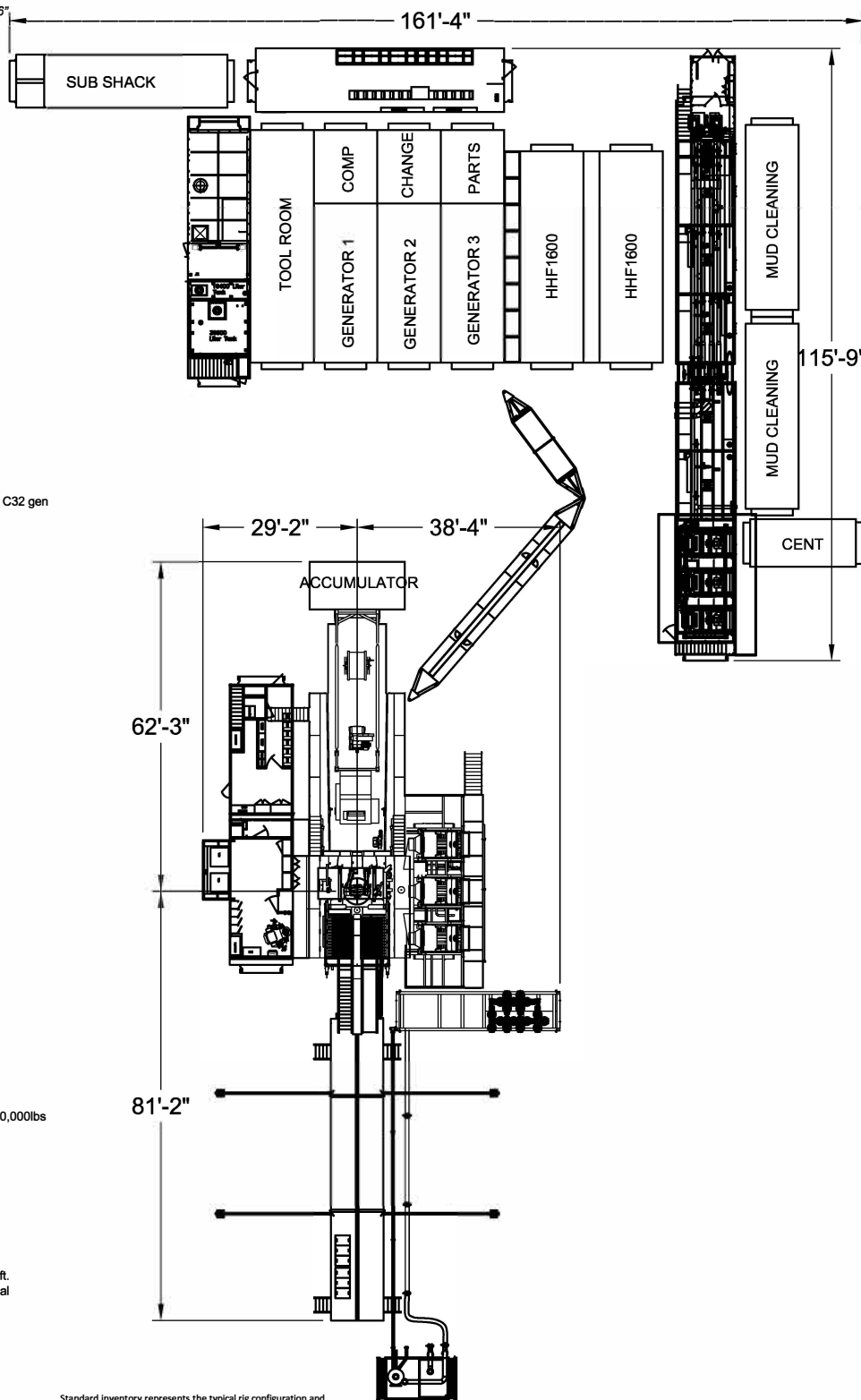
Walking beam hydraulic pony sub moving system for linear motion & side shift.

350' of Utility Suitcase style [50' lengths] connection for hydraulic and electrical supply.

TOOL/ STORAGE/ CAMP

Parts Storage Room and Tool House Room

Rig Manage Trailer: 14' x 44' skid mounted



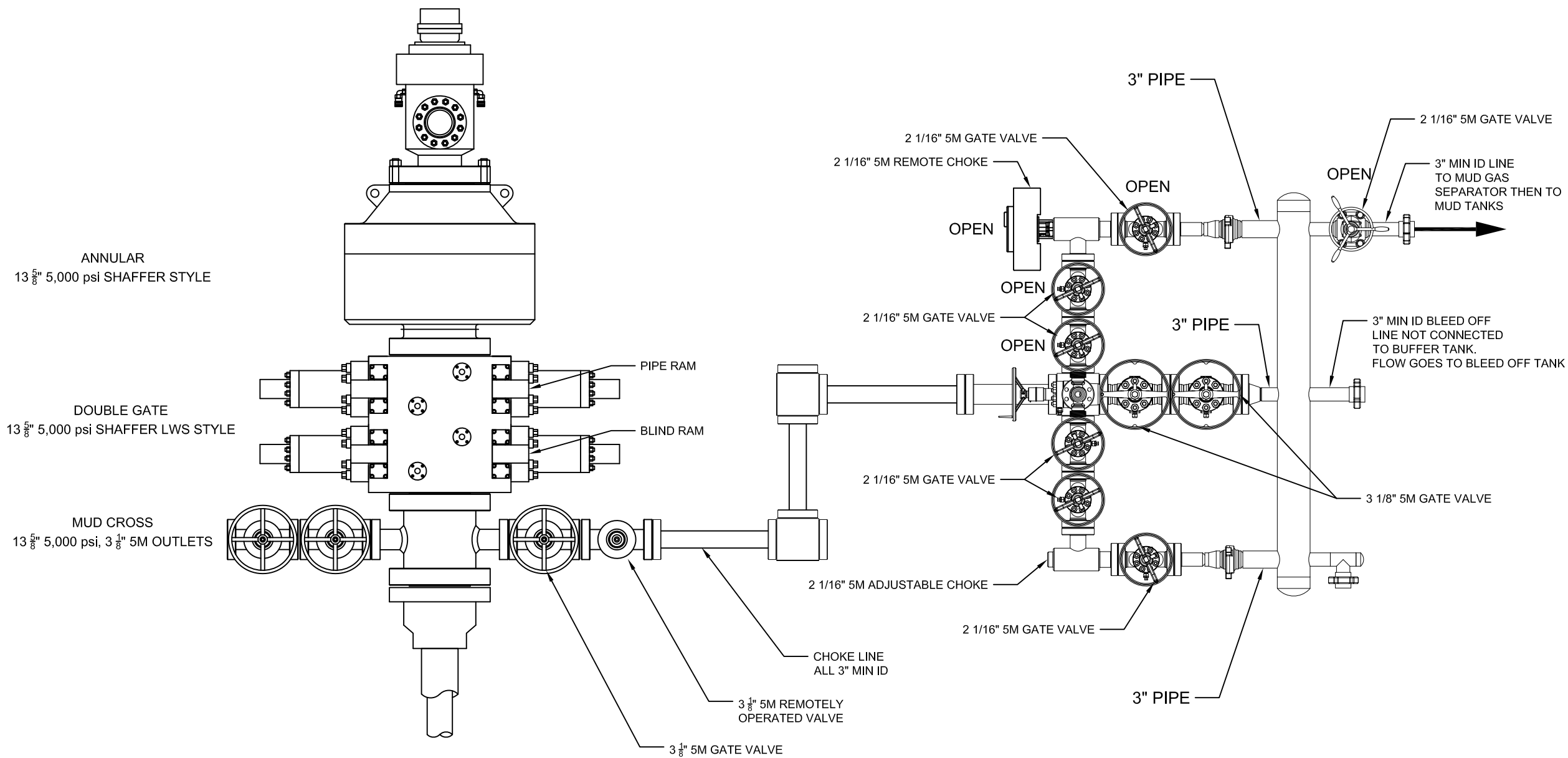
Standard inventory represents the typical rig configuration and inventory available, but specifications are subject to slight modifications from time to time due to customer requirements.

All ratings quoted herein are manufacturer specifications. AKITA's normal operating parameters are 90% of manufacturer mast ratings and 80% of mud pump manufacturer pressure rating. Operation of rig equipment beyond these parameters requires approval from AKITA field office management.

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TRANSCEND RIG 4	Contractor Specification
Make	Schram
Model	TXD 130
Year of Manufacture	2006
Truck Mounted	YES
Rated Drilling Depth	130,000# hook load
Rated Depth with Tubing	
Derrick Height	69' 9"
Derrick Type	Telescoping Hydraulic
Derrick Capacity	130,000#
Elevators	N/A
Drawworks	760 HP Detroit
Wire Diameter	Hydraulic
Workfloor Max Height	8'
Tongs	Hydraulic Iron Roughneck
Slips	Manual Slips
Included Tubing Handling Tools	• 13 3/8" handling tools
Included Rod Handling Tools	85jts of 4.5" drill pipe
BOP Class Compatibility	
Weight Indicator	Hydraulic
Rig Safety Equipment	Eye wash station, fire extengushers, wind sock
Pad Size Requirements/Limitations	60' x 60'
Guy Line Spacing	N/A
Other Supplied Rig Equipment	Standard Rig Hand Tools: • (2) 36" pipe wrenches • (2) 24" pipe wrenches • (2) 18" pipe wrenches • (1) 24" crescent wrench • (2) 12" crescent wrenches • (1) 4 lb shop hammer • (1) 12 lb sledge hammer • (1) 4 foot pry bar • Vehicles for Contractor personnel • Air Impact Wrench with Sockets • Mud Scales (as needed)

SCALE: 1" = 100'
DATE: 05/28/2024
SURVEYED BY: RG/AM/EU
DRAWN BY: AR
APPROVED BY: TAF
SHEET: 1 OF 1



Notes
-
-
-

No.	Revision	Date
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AKITA
DRILLING LTD.
2302 8th Street, Nisku Alberta
T9E 7Z2 Tel: (780) 955-6700

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Date	5-6-2021	Scale	NTS
Des / Chk'd By	BG	File Name	R57 13 5M dou..
Project	R57		

RIG 57 BOP SCHEMATIC



POWERING PROGRESS™

MTR DATA BOOK

CL2013

CUSTOMER: GATES CANADA INC**DATE:** 12/19/2017**Purchase Order:** D235455 (PO 45750)**Sales Order #:** 509128**Product Description:** 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill Gates Hose Assembly c/w 3 1/8
5K Flange with Safety Clamps & Slings Attached**Hose S/N:** H-121917-14**PART NUMBER:** FR5K3.517.0CK31/85KFLG S/C**CONTENTS INCLUDED****GMCO FITTINGS**

17-309-1

INSERT STEM

15-095-1A

FERRULE

3 1/8 in. 5K FIXED FLANGE X 3 1/8 in. 5K FLOAT FLANGE

V4131

FIXED FLANGE

V5054

FLOAT FLANGE

WELDING SPECIFICATIONS

Certification and Procedure for welding

NDE RESULTS

1622371-03/1622371-01 Ultrasonic Test Results and Imaging

Safety Clamps

34145/34144

TEST CHART

Chart Recording of Hydrostatic Test

TEST CERTIFICATE

Document Product Details & Positive Results of Hydrostatic Testing

CERTIFICATE OF CONFORMANCE

A Declaration of the conformity with the type approval

IMAGES

Images of the product prior to shipping.

PACKING LIST

Details of Shipping Contents, Dimensions and Weights



GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr. Suite 190
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/ollandgas

PRESSURE TEST CERTIFICATE

Customer:	GATES CANADA INC	Test Date:	12/19/2017
Customer Ref.:	D235455 (PO 45750)	Hose Serial No.:	H-121917-14
Invoice No.:	509128	Created By:	Cristian Rivera

Product Description: 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached

End Fitting 1:	3 1/8 in. 5K FIXED FLG	End Fitting 2:	3 1/8 in. 5K FLOAT FLG
Oracle Star No.:	68903550-9725917	Assembly Code:	15M5019042016H-121917-14
CUSTOMER P/N:	FR5K3.517.0CK31/85KFLG S/C	Test Pressure:	7,500 psi.
		Working Pressure:	5,000 psi.

Gates Engineering & Services North America certifies that:

The following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies) or GTS-04-048 (15K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment and instrumentation that has been calibrated in accordance with the requirements set-forth in the GESNA management system.

Quality: QUALITY
Date : 8/5/2021
Signature :

Production: PRODUCTION
Date : 8/5/2021
Signature :

F-PRD-005B

Revision 6_05032021

**BLACK GOLD®**

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CERTIFICATE OF CONFORMANCE

This is to certify that all parts and materials included in this shipment have manufactured and/or processed in accordance with various Gates and API assembly and test specifications. Records of required tests are on-file and subject to examination. Test reports and subsequent test graphs have been made available with this shipment. Additional supporting documentation related to materials, welding, weld inspections, and heat-treatment activities are available upon request.

CUSTOMER: GATES CANADA INC
CUSTOMER P.O.#: D235455 (PO 45750)
PART DESCRIPTION: FR5K3.517.0CK31/85KFLG S/C

PART DESCRIPTION: 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached

SALES ORDER #: 509128
QUANTITY: 1
SERIAL #: H-121917-14

SIGNATURE: _____

A handwritten signature in black ink, appearing to read "J. Rivera", written over a horizontal line.

TITLE: _____

QUALITY ASSURANCE

DATE: _____

8/5/2021

Gates E&S

North America

7603 Prairie Oak dr.

Houston, TX

Hydrostatic Test

Customer= **GATES CANADA**

Date of test= **12/19/17**

Serial # = **H-121917-13,-14**

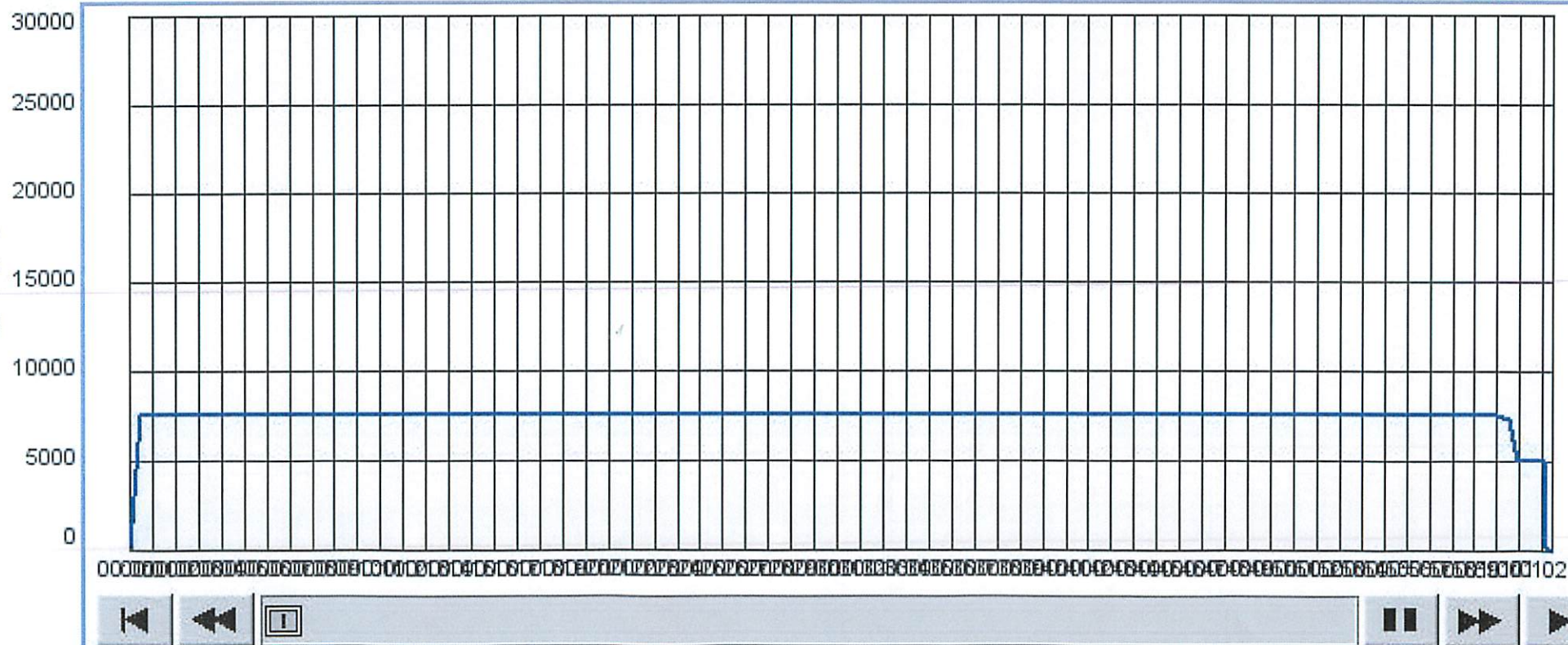
Description = **3.5 5K 3 1/8 FLG 5K**

Technician= **CHRIS OLIVO**

12/19/2017 16:53:26

17:55:52

P
S
I
G





Edwards Fabrication, L.L.C.

1385 Hwy. 35 Bypass S. O: (361) 790-7910
 P.O. Box 2350 F: (361) 790-7927
 Rockport, TX 78381

tedwards@edwardsfabrication.com
 www.edwardsfabrication.com

CERTIFICATE OF TEST

Client:
 Gates E & S North America
 134 44th Street
 Corpus Christi, TX 78405

Purchase Order: 1592198/0

Certificate Number			Date of Examination	
34145			04/27/17	
ID#	Part Number	Description	SWL*	Proofload
34145	E3.5S	3.5" E Safety Clamp	6016 lbs.	12031 lbs.

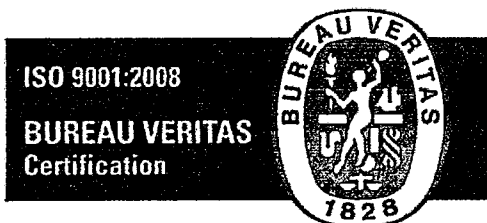
The Safety Clamp unit identified on this certificate has been load tested completely assembled; including the clamp body, (2) 3/4" shackles, 5/8" x 48" wire rope sling and anchor tab. Thus, all components are tested at the "Proof" load. Do not disassemble. Do not interchange any part or parts of this tested unit with parts of other Safety Clamp units. DO NOT WELD, CUT, ADD-TO, TAKE AWAY ANY COMPONENTS OR MAKE ANY MODIFICATION TO THIS CLAMP UNIT. Doing so voids this test certificate.

Cutting/Removing either one or both stainless steel Tamper-proof hardware cables renders this Test Certificate VOID.

* Safe Work Load

THIS PRODUCT IS MANUFACTURED IN THE U.S.A.

We hereby verify that the above information is correct
 as contained in the records of Edwards Fabrication L.L.C.



Edwards Fabrication L.L.C. is certified as
 having a Quality Management System.

Thomas F. Edwards
 President
 Edwards Fabrication L.L.C.



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CERTIFICATE OF TEST

Client:
 Gates E & S North America
 134 44th Street
 Corpus Christi, TX 78405

Purchase Order: 1592198/0

Certificate Number				Date of Examination	
34144				04/27/17	
ID#	Part Number	Description	SWL*	Proofload	
34144	E3.5S	3.5" E Safety Clamp	6014 lbs.	12027 lbs.	

The Safety Clamp unit identified on this certificate has been load tested completely assembled; including the clamp body, (2) 3/4" shackles, 5/8" x 48" wire rope sling and anchor tab. Thus, all components are tested at the "Proof" load. Do not disassemble. Do not interchange any part or parts of this tested unit with parts of other Safety Clamp units. DO NOT WELD, CUT, ADD-TO, TAKE AWAY ANY COMPONENTS OR MAKE ANY MODIFICATION TO THIS CLAMP UNIT. Doing so voids this test certificate.

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Thomas F. Edwards
 President
 Edwards Fabrication L.L.C.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 445776

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 445776
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
schapman01	Cement is required to circulate on both surface and intermediate1 strings of casing.	3/26/2025
schapman01	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	3/26/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	4/11/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	4/11/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	4/11/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	4/11/2025